

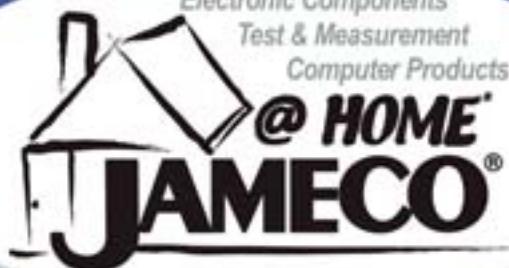
# The #1 Source of Electronic Components for Hobbyists

*While Technology  
Has Changed...*



Same Day Shipping

Electronic Components  
Test & Measurement  
Computer Products



Friendly Customer Support



24/7 Ordering

*We've Kept Our Good  
Old-Fashioned Service!*

24/7 Service

99% In-Stock

Low Price Guarantee

Winter 2005 Volume 651

1-800-455-6119

[www.Jameco.com](http://www.Jameco.com)

# Selection and Service

We're committed to providing you with a wide selection of quality products, the lowest catalog prices, and the best old-fashioned service available. Over the last 30 years, it's simply the way we have best pleased our customers.

This catalog contains most commonly used hobbyist products. And as always, our complete broad line of electronic products is available to you at [www.Jameco.com/Home](http://www.Jameco.com/Home).

## We've Expanded Our Selection!



Check out the PIC Microcontrollers on pages 6 and 7. Hundreds more at [www.Jameco.com/PIC](http://www.Jameco.com/PIC).



Stock your spare parts bin. You'll find new 74ALS and 74LS devices on pages 8 and 9.



Jameco stocks hundreds of Linear/Analog ICs. See pages 10 & 11 for the most popular hobbyist devices. Visit us online at [www.Jameco.com/ICs](http://www.Jameco.com/ICs) for more in-stock devices.



Repairing a product? Jameco stocks hundreds of NTE Replacement Semiconductors. Check out pages 12 & 13 for a sampling.



Check out our expanded line of 7-Segment and discrete LEDs on pages 16 & 17 or visit [www.Jameco.com/LEDs](http://www.Jameco.com/LEDs).



Looking for Analog Panel Meters? We have ranges from  $\mu$ A to 30A and VAC/VDC on page 19.

We've got the power! Check out our expanded selection of Wall Adapters on pages 37-39.



Keep it cool with our expanded selection of Fans on pages 42 & 43 or visit [www.Jameco.com/Fans](http://www.Jameco.com/Fans).



Now you can find more Hand Tools and Soldering Equipment on pages 57-61.



Get high quality Connectors. See our line on pages 88 & 89 or visit us at [www.Jameco.com/Home](http://www.Jameco.com/Home).

Find more of what you're looking for at [www.Jameco.com](http://www.Jameco.com)

## The Best Old-Fashioned Service

- Our staff is different. Each team member strives to make your experience with Jameco **best in class**. Give us a try.
- Our friendly sales department will take your order **24x7x365** by phone, fax, web or email. We're here when you need us!
- Over 99% of our products are **in stock**. When you order before 6 PM EST, we'll ship it the **same business day**.
- Our **knowledgeable Tech Support** department is ready to answer your questions. Just call us!

## New Audio/Video Products

### Audio Video Selectors

*Need to add A/V source inputs?*

**NEW**

No problem!

Add up to four A/V source inputs into your receiver (typically a TV, VCR or a home theater



surround-sound receiver). These affordable A/V switchers let you do just that and more, quickly and easily! Because our Automatic and Manual A/V Selector units support both composite and S-Video, it accepts virtually any A/V source, including VCRs, DSS satellite receivers, video game consoles, DVD players, LaserDisc players or WebTV receivers. Plus, with our Automatic switcher (319142EE), you just set it up and forget it's there. It senses which input is receiving a signal and switches to it automatically without any intervention on your part.

### DSS K-Band LNB

**NEW**

Want to enjoy satellite TV channels on another TV in your house without the hassle of replacing your entire satellite dish? No problem! This is a genuine Direct TV DSS replacement LNB for individual and multi-satellite systems. Now any single-LNB satellite dish can become a dual-LNB dish with this Replacement Dual LNB. Installation takes just minutes using common household tools.



**STEREN**

#### Features:

- Dual output VSWR 75 $\Omega$
- Input frequency range from 12.2-12.7 GHz
- Output frequency range from 950-1450 MHz
- LO stability 11.25GHz +2MHz @22 degrees  $^{\circ}$ C
- Converter gain 50-62dB +0.5dB max
- Converter noise 0.9dB typical, 1.1dB max

See pages 82 and 84

### Panel Meters



Our analog panel meters are the perfect instruments for hobbyists and experimenters. They are easily incorporated and easy to mount. Available in many standard AC or DC ranges, they feature extra wide scales, big bold numerals and a mirror window for accurate readings.

See page 19

### Electric Fence Charger Module

*Keep pests at bay, and stay pesticide free!*



This small module packs a high-voltage punch! Knowledgeable users can tap the output of this unit to create a **no-pest-zone** around valuable vegetable and flower gardens. For remote applications, its 12V input voltage allows it to be driven by a car battery. **CAUTION: Anti-pest use only.** It is illegal to create booby-traps, even on your own property. Electric shocks from units such as this can be dangerous, and possibly lethal, **so please take appropriate precautions.**

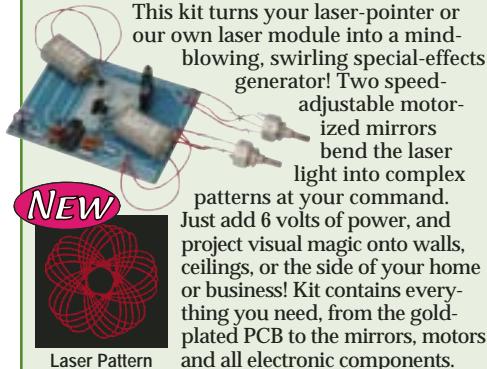
Part No.	Description	Price
314173EE	Mini fence high voltage charger module	<b>NEW</b> .... \$16.95

## Newly Added Kits

KIT ASSEMBLY  
EXPERIENCE LEVEL:  = Beginner  = Intermediate  = Expert

### Laser Light Show Kit

*Dazzling living-room laser light shows, at a great price!*



This kit turns your laser-pointer or our own laser module into a mind-blowing, swirling special-effects generator! Two speed-adjustable motorized mirrors bend the laser light into complex patterns at your command.

Just add 6 volts of power, and project visual magic onto walls, ceilings, or the side of your home or business! Kit contains everything you need, from the gold-plated PCB to the mirrors, motors and all electronic components.

**SPECIAL DEAL:** order P/N 313883EE and save 13%! Includes light show kit plus our P/N 310519EE laser module on page 102!

313875EE: laser module not included

313883EE: bundle kit (includes P/N 310519EE, laser module on page 102)

• Complete specifications on page 102.

Part No.	Product No.	Description	Price
313875EE	B224	Laser light show kit	\$22.95
313883EE	—	Laser light show kit bundle	59.95

### Gas Sensor/Spirits Tester

 15-piece kit



*Let this tester detect those "evil" spirits!*

This sensitive instrument indicates the presence of environmental gases such as alcohol, benzene, propane and carbon monoxide. If you work around these substances, this device can provide an added measure of insurance and personal safety. With this board, you can build a tester with adjustable sensitivity, LED indicator, and a relay trigger for an alarm. Operates on 12 volts, and its compact 0.22" x 0.18" dimensions make it a good fit for your detector projects.

Part No.	Description	Price
313736EE	Gas sensor/spirits tester	\$29.95

### Service Is Key!

To be your #1 source, we know service is important. That's why we're available 24/7, offer friendly, knowledgeable technical support, and ship all orders on the same business day when placed before 6 PM EST. We hope you'll continue to reap the benefits Jameco offers.



## Need Access to More Products?

If you don't find what you need in the catalog, we probably have the products you're looking for on our recently-enhanced web site. Visit us at [www.Jameco.com/Home](http://www.Jameco.com/Home) to find thousands of additional semiconductors, passive products, bulk wire, assembled cables, connectors, electromechanical components, power supplies, fans, etc.

Now all of the products are neatly organized for quick look-up in the left-hand menu bar. **Plus, the new Quick Order box lets you buy specific products** from this catalog in an instant.

See Detailed Product Index on Pages 100 & 101

Integrated Circuits ..... 5-13

Electronic & Opto Components ..... 14-26

Interconnect & Hardware ..... 27-35

Power Components ..... 36-49

Electronic Design ..... 50-54

Tools & Test Equipment ..... 55-68

Books, Computer & Networking ..... 69-81

Audio & Video ..... 82-89

Cameras & Security ..... 90-91

Kits, Solar & Lasers ..... 92-97, 102-103

Order Form,  
Info & Product Index ..... 98-101

## Here's What's New

Over 650 Products Added!

Audio & Video ..... 82-92

Computer Products ..... 70-75

Fans ..... 42

Integrated Circuits ..... 7-11

Kits ..... 3, 92-95, 97

LEDs & Displays ..... 16 & 17

Power Products ..... 36, 37, 41, 93

Programmers ..... 53

Relays ..... 27 & 28

Solder Equipment ..... 57 & 58

Switches ..... 24-26

Test & Measurement ..... 63-65, 92

## PRICES

Prices are effective 1-10-05. Prices and discounts are subject to change without notice.



**Just-in-time stocking only at Jameco.**

Take advantage of our "just in time" fast delivery. Only Jameco has stocking levels that guarantee 99% in-stock availability! Call any weekday before 6:00 PM EST, and you can be assured you will have it the next day.

**Don't get frustrated... find it at Jameco!**

Come to Jameco for popular electronic components, computer products, test equipment, and our latest selection of products for your home and personal use; all at unbeatable prices. You can also find those elusive and frustratingly hard-to-find items, and even some out-of-production parts, too! Join the multitudes of happy Jameco customers... You'll be glad you did.

**The Color Code Legend...** For easy reference we have included this color code legend on every page.

**Find New Products Quickly...** Look for the part numbers in **magenta**.

**Save on Sale Items!**... Sale products are highlighted in **yellow** and **orange**, so you can identify items whose prices have been reduced in all quantities.

**SALE**

Part No.	Product No.	Price	Description
44039	TM4C	\$8	Count 2 input/4000 gate - \$ 8.00
44039	TM4C	\$4	Count 2 input/4000 gate - \$ 4.00
44039	TM4C	\$4	Count 2 input/4000 gate - \$ 4.00
44039	TM4C	\$4	Count 2 input/4000 gate - \$ 4.00

Part No.	Product No.
155643	DC603F1

Part No.	Product No.
25101	MC146818

Part No.	Product No.
199718EA	83-key PS/2

..... \$49.95

..... \$49.95

..... \$49.95

**Last Chance Opportunities...** Unfortunately we're not always able to restock certain products. In this case we'll print **blue** part numbers, so if we know there's limited stock, you'll also know.

**Hard-to-Find Products...** Some products are no longer produced, and yet we know you need them. That's why we occasionally offer pulled or refurbished products. Pulled part numbers are clearly printed in **purple** and refurbished in **brown**. Each is backed by our standard Jameco warranty.

**Jameco's Price Reductions are Substantial...**

Rest assured your savings are not just numerous.

They're significant too! Look for former prices slashed out to the left.

..... \$49.95

..... \$49.95

..... \$49.95

**Our Low Price Guarantee Doesn't Get Much Use...**

... And we like it that way. We take our Low-Price Guarantee seriously, so we search around the world to identify the sources for the lowest prices for our high-quality products. In fact, we have a team of people dedicated to making sure we have the lowest prices available.

**The Jameco Advantage...****We'll Beat Their Prices by 10%!**

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost. Just call us.

**Around-the-Clock Ordering**

You can call us at 1-800-455-6119 24x7x365 to place your order. Or visit us on the web at [www.Jameco.com](http://www.Jameco.com).

**Same Day Shipping & Always In-Stock**

99% of orders placed by 6 PM EST are shipped the same day, and 99% of our items are in-stock!

**Help Avoid Duplicate Catalogs**

While we don't intend to send multiple catalogs to the same person, on occasion we do make mistakes. If you're incorrectly receiving multiple catalogs, please visit our web site at [www.Jameco.com/DupCats](http://www.Jameco.com/DupCats) and we'll remove the duplicates. Alternatively, you can mail the duplicate back-covers to us:

Jameco Electronics – Duplicate Catalogs – 1355 Shoreway Rd., Belmont, CA 94002

**Refer a Friend**

Are you tired of loaning your latest copy of the Jameco catalog to a friend or business associate? If they can't take a hint just visit our web site at [www.Jameco.com/CatReferral](http://www.Jameco.com/CatReferral). We'd be happy to send them a catalog too!

**Contact Information****Order Desk 24/7, 365 Days a Year**

Phone: 1-800-455-6119

Fax: 1-800-237-6948

E-mail: [sales@Jameco.com](mailto:sales@Jameco.com)

**Website [www.Jameco.com](http://www.Jameco.com)****International Order Desk**

Phone: 650-592-8097

Fax: 650-592-2503

E-mail: [international@Jameco.com](mailto:international@Jameco.com)

**Technical Support**

Phone: 1-800-831-4242

E-mail: [tech@Jameco.com](mailto:tech@Jameco.com)

**Customer Service**

Phone: 1-800-831-4242

E-mail: [custservice@Jameco.com](mailto:custservice@Jameco.com)

**Credit Department**

Phone: 650-592-8097

E-mail: [credit@Jameco.com](mailto:credit@Jameco.com)

**International Toll-Free Fax Numbers**

Columbia: 980-9-136748

Mexico: 001-800-593-1449

Indonesia: 1-803-015-237-6948

Brazil: 000-817-455-6119

New Zealand: 080-044-0470

**Product Marketing**

Tell us about new products you would like us to offer. Send request to [AtHome@Jameco.com](mailto:AtHome@Jameco.com)

At Jameco our goal is to provide you with more of what you want at unbeatable prices. Let us know how we can better serve your electronic component needs as an inventor, hobbyist or DIYer. Please send requests to [AtHome@Jameco.com](mailto:AtHome@Jameco.com).

Jameco Electronics is a trademark of James Electronics, LTD. Other product names and logos are used for identification purposes only and are trademarks of their respective companies. ©2005 James Electronics. All rights reserved.

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

**EPROM**

 See more EPROM @ [www.Jameco.com/EPROM](http://www.Jameco.com/EPROM)

Part No.	Cross Ref.	Pins	Description	1	10
39909EE	2708	24	1k x 8 8kB	450ns (±5V, +12V) .....	\$4.99 \$4.29
40002EE	2716	24	2k x 8 16kB	450ns (25V) .....	4.09 3.69
39706EE	27C16	24	2k x 8 16kB	450ns (25V) CMOS .....	6.99 5.99
40011EE	2716-1	24	2k x 8 16kB	350ns (25V) .....	6.49 5.89
114876EE	2732B	24	4k x 8 32kB	450ns (12.5V) .....	4.19 3.79
33591EE	TMS2532A	24	4k x 8 32kB	450ns (21V) .....	3.99 3.59
40096EE	2732	24	4k x 8 32kB	450ns (25V) .....	6.49 5.49
40133EE	2732A-45	24	4k x 8 32kB	450ns (21V) .....	3.99 3.69
39765EE	27C32	24	4k x 8 32kB	450ns (25V) CMOS .....	5.49 4.19
40125EE	2732A-25	24	4k x 8 32kB	250ns (21V) .....	4.99 4.49
40109EE	2732A-20	24	4k x 8 32kB	200ns (21V) .....	6.49 5.99
40192EE	2764-20	28	8k x 8 64kB	200ns (21V) .....	5.29 4.79
40205EE	2764-25	28	8k x 8 64kB	250ns (21V) .....	5.29 4.79
40230EE	2764A-20	28	8k x 8 64kB	200ns (12.5V) .....	4.49 4.09
40248EE	2764A-25	28	8k x 8 64kB	250ns (12.5V) .....	3.99 3.69
105304EE	27C64-12	28	8k x 8 64kB	120ns (12.5V) CMOS .....	6.49 5.99
39829EE	27C64-15	28	8k x 8 64kB	150ns (12.5V) CMOS .....	3.79 3.49
74608EE	27C64-20	28	8k x 8 64kB	200ns (12.5V) CMOS .....	4.69 4.29
39845EE	27C64-25	28	8k x 8 64kB	250ns (12.5V) CMOS .....	4.49 4.09
39933EE	27128-25	28	16k x 8 128kB	250ns (21V) .....	4.29 3.99
39984EE	27128A-25	28	16k x 8 128kB	250ns (12.5V) .....	4.49 4.09
39685EE	27C128-25	28	16k x 8 128kB	250ns (12.5V) CMOS .....	3.99 3.59
39968EE	27128A-20	28	16k x 8 128kB	200ns (12.5V) .....	4.69 4.19
101101EE	27C128-20	28	16k x 8 128kB	200ns (12.5V) CMOS .....	4.39 3.95
39950EE	27128A-15	28	16k x 8 128kB	150ns (12.5V) .....	4.49 3.99
87935EE	27C128-12	28	16k x 8 128kB	120ns (12.5V) CMOS .....	4.69 4.09
39677EE	27C128-15	28	16k x 8 128kB	150ns (12.5V) CMOS .....	4.29 3.89
40037EE	27256-15	28	32k x 8 256kB	150ns (12.5V) .....	3.29 3.09
39722EE	27C256-20	28	32k x 8 256kB	200ns (12.5V) CMOS .....	2.59 2.49
39731EE	27C256-25	28	32k x 8 256kB	250ns (12.5V) CMOS .....	3.19 2.99
140476EE	27C256-70	28	32k x 8 256kB	70ns (12.5V) CMOS .....	3.39 3.19
112740EE	27C256-10	28	32k x 8 256kB	100ns (12.5V) CMOS .....	3.29 3.09
65904EE	27C256-12	28	32k x 8 256kB	120ns (12.5V) CMOS .....	2.09 1.99
39714EE	27C256-15	28	32k x 8 256kB	150ns (12.5V) CMOS .....	2.09 1.79
40168EE	27512-25	28	64k x 8 512kB	250ns (12.5V) .....	3.69 3.39
131959EE	27C512-10	28	64k x 8 512kB	100ns (12.5V) CMOS .....	3.19 2.99
39773EE	27C512-12	28	64k x 8 512kB	120ns (12.5V) CMOS .....	1.69 1.59
39781EE	27C512-15	28	64k x 8 512kB	150ns (12.5V) CMOS .....	2.09 1.99
39790EE	27C512-20	28	64k x 8 512kB	200ns (12.5V) CMOS .....	3.09 2.89
39802EE	27C512-25	28	64k x 8 512kB	250ns (12.5V) CMOS .....	4.75 4.39
203617EE	27C512-45	28	64k x 8 512kB	45ns (12.5V) CMOS .....	4.09 3.79
203625EE	27C512-70	28	64k x 8 512kB	70ns (12.5V) CMOS .....	2.89 2.49
175206EE	27C512-90	28	64k x 8 512kB	90ns (12.5V) CMOS .....	2.79 2.59
118148EE	27C1024-15	40	64k x 16 1024kB	150ns (12.5V) CMOS .....	5.29 4.79
39651EE	27C010-15	32	128k x 8 1024kB	150ns (12.5V) CMOS .....	\$2.59 2.19 1.99
74624EE	27C010-12	32	128k x 8 1024kB	120ns (12.5V) CMOS .....	\$2.99 2.09 1.99
39669EE	27C010-20	32	128k x 8 1024kB	200ns (12.5V) CMOS .....	2.39 2.29
146149EE	27C010-70	32	128k x 8 1024kB	70ns (12.5V) CMOS .....	2.49 2.29
78852EE	27C020-12	32	256k x 8 2048kB	120ns (12.5V) CMOS .....	5.29 4.89
65699EE	27C020-15	32	256k x 8 2048kB	150ns (12.5V) CMOS .....	5.29 4.99
127933EE	27C4096-12	40	256k x 16 4096kB	120ns (12.5V) CMOS .....	9.29 8.69
111780EE	27C040-10	32	512k x 8 4096kB	100ns (12.5V) CMOS .....	7.09 6.49
102293EE	27C040-12	32	512k x 8 4096kB	120ns (12.5V) CMOS .....	6.59 6.09
85462EE	27C040-15	32	512k x 8 4096kB	150ns (12.5V) CMOS .....	6.59 6.09
203668EE	27C040-45	32	512k x 8 4096kB	45ns (12.5V) CMOS .....	9.99 9.09
203684EE	27C080-90	32	1M x 8 8192kB	90ns (12.5V) CMOS .....	12.99 11.99
156275EE	27C080-10	32	1M x 8 8192kB	100ns (12.5V) CMOS .....	12.99 11.99
140003EE	27C080-12	32	1M x 8 8192kB	120ns (12.5V) CMOS .....	12.59 11.59
156283EE	27C160-10	42	2M x 8 16384kB	100ns (12.5V) CMOS .....	19.99 18.99

See EPROM programmers on page 53

**EPROM Accessories**

Part No.	Cross Ref.	Description	1	5
66042EE	DE1	UV portable EPROM eraser, pg 52 .....	\$54.95	\$49.95

**EEPROM**

 See more EEPROM @ [www.Jameco.com/EEPROM](http://www.Jameco.com/EEPROM)

Part No.	Cross Ref.	Pins	Description	1	10
108847EE	24C04P	8	512x 8 4096-bit serial CMOS .....	\$ .89	\$ .79
74691EE	28C16A-25	24	2k x 8 16k 250ns (5V) CMOS .....	3.99	3.69
74827EE	28C64A-25	28	8k x 8 64k 250ns (5V) CMOS .....	4.49	4.05
200580EE	24C256-10	8	32k x 8 256k serial CMOS .....	3.19	2.39
74843EE	28C256-15	28	32k x 8 256k 150ns CMOS .....	8.99	6.89
74878EE	28C256-25	28	32k x 8 256k 250ns CMOS .....	8.75	7.45

**OTP/PROM**

 See more OTP/PROM @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Cross Ref.	Pins	Description	1	10
48717EE	74S288	16	32x 8 Tri-state (27S19/TBP18S030N) .....	\$7.39	\$6.39
27764EE	N82S123	16	32x 8 PROM tri-state (27S19) .....	8.89	8.49
27781EE	N82S129	16	256x 4 1024-bit PROM tri-state (27S21) .....	9.95	9.45
27801EE	N82S137	18	1024x 4 4096-bit PROM tri-state (27S33) .....	6.95	6.25

**Flash Memory**

 See more Flash Memory @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Cross Ref.	Pins	Description	1	10
74771EE	28F010-15	32	128k x 8 150ns (12V) CMOS .....	\$6.95	\$6.25
74835EE	28F020-15	32	256k x 8 150ns (12V) CMOS .....	7.95	7.15

**Dynamic Video RAM**

 See more Dynamic Video RAM @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Cross Ref.	Pins	Description	1	10
114323EE	DS1230Y-150	28	— 256k nonvol., 4.37V (write protect) .....	\$19.95	\$18.95
42198EE	5101	22	256x 4 450ns CMOS .....	7.99	7.19
38957EE	2114N	18	1k x 4 450ns (914BPC) .....	2.29	1.99
38973EE	2114N-2	18	1k x 4 200ns (914EPC) (U214D20) .....	2.49	2.09
38981EE	2114N-2L	18	1k x 4 200ns low power .....	2.49	2.25
42921EE	6264P-10	28	8k x 8 100ns (64kB) CMOS .....	2.59	2.29
42930EE	6264P-12	28	8k x 8 120ns (64kB) CMOS .....	2.65	2.39
85121EE	6264LP-70	28	8k x 8 70ns (64kB) LP CMOS .....	3.39	3.05
42884EE	6264LP-10	28	8k x 8 100ns (64kB) LP CMOS .....	2.75	2.49
42892EE	6264LP-12	28	8k x 8 120ns (64kB) LP CMOS .....	2.79	2.49
242721EE	6264-55	28	8k x 8 55ns (5V) CMOS async .....	3.29	2.59
82472EE	62256LP-70	28	32k x 8 70ns low power CMOS .....	5.49	4.99
42833EE	62256LP-10	28	32k x 8 100ns low power CMOS .....	4.19	3.55
42850EE	62256LP-12	28	32k x 8 120ns low power CMOS .....	3.89	3.49
75037EE	ATT7C199P-15	28	32k x 8 15ns high speed CMOS (.3" W) .....	3.39	2.99
131810EE	628128LP-70	32	128k x 8 70ns low power CMOS .....	8.99	7.39
157358EE	628512LP-70	32	512k x 8 70ns low power CMOS .....	18.99	16.99

\* Pull = Extra Savings

**CPUs/MPUs**

 See more CPUs and MPUs @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Description	MHz	Socket	1	10
183118EE	Pentium® III processor	600	Slot 1 .....	\$117.59	\$99.95
183100EE	Pentium® II processor	400	Slot 1 .....	99.95	74.95
151651EE	Pentium® II processor	300	Slot 1 .....	89.95	85.45
190060EE	Pentium® II w/ heat sink	233	Slot 1 .....	89.95	79.95
150501EE	Pentium MMX® processor	233	376/PGA .....	69.95	62.95
140054EE	Pentium MMX® processor	200	376/PGA .....	49.95	37.45
130841EE	Pentium® processor	166	296/PGA .....	49.95	37.45
130833EE	Pentium® processor	133	296/PGA .....	39.95	35.95
118421EE	Intel 486DX2 processor	66	168/PGA .....	19.95	14.96

\* Pull = Extra Savings

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

 COLOR CODE LEGEND...  
 NEW SALE REFURISHED CLOSEOUT

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

**Zilog Z80 MPUs**See more Zilog MPUs @ [www.Jameco.com/Z80](http://www.Jameco.com/Z80)

Part No.	Cross Ref.	Pins	MHz	Description	1	10
35561EE	Z80	40	2.5	CPU (MK3880N/780C)	\$1.39	\$1.19
<b>35609EE</b>	Z80A-CTC	28	4	CPU counter timer circuit (MK3882-4)	1.99	1.79

\* Pull = Extra Savings

**6500 Series**See more 6500 Series @ [www.Jameco.com/6500](http://www.Jameco.com/6500)

Part No.	Cross Ref.	Pins	Description	1	10
43191EE	6502	40	MPU with internal clock (1MHz)	\$7.95	\$6.95
43166EE	65C02	40	MPU with internal clock (CMOS)	6.95	5.25
43254EE	6522	40	VIA (versatile interface adapter) 1MHz	2.39	2.15
<b>43297EE</b>	6532 — NEW	40	MPU with internal clock (CMOS)	7.95	6.99

\* Pull = Extra Savings

**6800/68000 Series**See more 6800/68000 Series @ [www.Jameco.com/6800](http://www.Jameco.com/6800)

Part No.	Cross Ref.	Pins	Description	1	10
43481EE	6800	40	8-bit MCU	\$6.95	\$5.25
<b>43502EE</b>	6802	40	8-bit MCU with clock and RAM (1MHz)	8.49	7.65
<b>43537EE</b>	MC6808 — NEW	40	8-bit MPU with clock and 128K RAM	8.95	8.06
43596EE	6821	40	Peripheral interface adapter (1MHz)	3.95	3.59
43414EE	68B21	40	Peripheral interface adapter (2MHz)	4.95	4.49
43633EE	6850	24	Asynch. comm. int. adapter (ACIA)	2.39	2.09
25363EE	MC68705P3S	28	8-bit EPROM MPU w/ 112B RAM & I/O	24.95	22.95
132484EE	MC68HC705C8S	40	8-bit HCMOS MCU, 8k bytes, EPROM	38.95	34.95
248612EE	MC68HC705P6ACP	28	MCU, OTP 4.5k ROM, 21 I/O A/D	3.95	2.75
248401EE	MC68HC908JB8JP	20	MCU, flash 8k ROM, 37 I/O USB	5.49	5.45
248381EE	MC68HC908JL3CP	28	MCU, flash 4k ROM, 23 I/O, A/D	4.55	4.35
248364EE	MC68HC908JK3CP	20	MCU, flash, 4k ROM 15 I/O	3.75	3.45
248428EE	MC68HC908KX8CP	16	MCU, flash 8k ROM, 13 I/O, A/D	5.65	5.45
248487EE	MC68HC908Q1T1CP	8	MCU, flash, 1.5k ROM, 6 I/O	1.89	1.45
248461EE	MC68HC908QT2CP	8	MCU, flash, 1.5k ROM, 6 I/O, A/D	2.85	2.55
248444EE	MC68HC908QT4CP	8	MCU, flash 4k ROM, 6 I/O, A/D	2.69	1.65
248541EE	MC68HC908QY1CP	16	MCU, flash, 1.5k ROM, 141 I/O	2.15	1.65
248524EE	MC68HC908QY2CP	16	MCU, flash, 1.5k ROM, 13 I/O, A/D	2.55	1.95
248508EE	MC68HC908QY4CP	16	MCU, flash, 4k ROM, 13 I/O, A/D	2.89	2.49
191863EE	MC68HC11E1CP2	48	8-bit micro cntl. w/ A/D conv. (512B RAM)	15.95	14.35

\* Pull = Extra Savings

**8000 Series**See more 8000 Series @ [www.Jameco.com/8000](http://www.Jameco.com/8000)

Part No.	Cross Ref.	Pins	Description	1	10
51844EE	8031	40	CPU with 128 x 8 RAM and I/O	\$3.29	\$2.99
102197EE	8032	40	8-bit MCU 256 x 8 RAM	3.95	3.59
51959EE	8039	40	CPU single chip 8-bit (128 bytes RAM)	4.49	3.99
<b>51991EE</b>	8051AP**	40	MCU w/128x8 RAM	5.49	4.99
52046EE	8080A	40	CPU 8-bit N-channel (1MHz)	4.49	3.95
52062EE	8085A	40	CPU 8-bit N-channel (3MHz)	4.99	4.49
52142EE	8088	40	CPU 16-bit (8-bit data bus) 5MHz	2.49	2.25
52071EE	8085A-2	40	CPU 8-bit N-channel (5MHz)	5.49	4.99
51705EE	80C85A-2	40	CPU 8-bit N-channel (5MHz)(CMOS)	6.95	5.95
52290EE	8155	40	HMOS RAM I/O port/timer (3MHz)	4.49	4.05
52302EE	8155-2	40	HMOS RAM I/O port/timer (5MHz)	5.95	5.39
52468EE	8212	24	8-bit input/output (74S412)	6.49	5.99
52644EE	8251	28	Prog. comm. I/O (USART)	2.99	2.69
52652EE	8251A	28	Prog. comm. interface (USART)	3.99	3.69
52687EE	8253-5	24	Prog. interval timer (2MHz)	4.99	4.49
52708EE	8254	24	Prog. interval timer (UPD71054)	4.49	3.99
52716EE	8254-2v	24	Prog. interval timer (10MHz)	7.35	6.65
52409EE	82C54-2	24	Prog. interval timer (CMOS) 10MHz	4.49	4.05
52724EE	8255	40	Prog. peripheral I/O (PPI) 71055 (2MHz)	4.49	3.99
52732EE	8255A-5	40	Prog. peripheral I/O (PPI) 5MHz	4.89	4.39
52417EE	82C55A	40	Prog. peripheral I/O (PPI) CMOS	4.99	4.49
52425EE	82C55A-5	40	Prog. peripheral I/O (PPI) CMOS (5MHz)	4.49	3.99
52759EE	8256	40	Multif. universal asynch. rec./trans.	19.99	17.99
52839EE	8279	40	Prog. keyboard/display interface	12.99	11.99
<b>52847EE</b>	8279-5	40	Prog. keyboard/display interface (5MHz)	12.95	11.69
52871EE	8284A	18	Clock gen. and driver (UPD71084)	4.49	3.99
53031EE	8748H	40	CPU 8-bit, EPROM, RAM & I/O HMOS (21V)	15.95	14.49
53057EE	8749H	40	MPU 8-bit (EPROM version 8049)	22.99	19.49
53081EE	8751H	40	CPU w/ 4kx8 EPROM & 128x8 RAM (1.2-12MHz)	24.95	20.25
<b>52978EE</b>	87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM (3.5-12MHz)	21.99	19.79
53090EE	8755	40	16k EPROM with I/O	8.95	8.09

\*\* Tie pin 31 low to bypass the internal ROM

\* Pull = Extra Savings

**PIC Microcontrollers**See more PIC @ [www.Jameco.com/PIC](http://www.Jameco.com/PIC)

Part No.	Product No.	Pkg.	Pins	Memory	Speed (MHz)	ROM Bits	RAM Bytes	I/O Pins	1	25
145040EE	PIC12C508-04/P	8	OTP	4	512	25	5	..... \$1.49	\$ .99	
144258EE	PIC12C509-04/P	8	OTP	4	1k	41	5	..... 1.49	1.09	
<b>223790EE</b>	PIC12F629-I/P	8	Flash	20	1k	64	6	..... 1.59	1.39	
247193EE	PIC12F629-I/SN	8	Flash	20	1k	64	6	..... 1.59	1.29	
<b>223781EE</b>	PIC12F675-I/P	8	Flash	20	1k	64	6	..... 1.99	1.69	
247206EE	PIC12F675-I/SN	8	Flash	20	1k	64	6	..... 1.99	1.29	
247329EE	PIC16C505-20/I/P	14	OTP	20	1k	72	11	..... 2.05	1.85	
247337EE	PIC16C505-20/I/S	14	OTP	20	1k	72	11	..... 1.99	1.69	
<b>128338EE</b>	PIC16C54A-04/P	18	OTP	4	512	25	12	..... 3.59	2.59	
247214EE	PIC16C54C-20/I/P	18	OTP	20	512	25	12	..... 2.35	2.05	
247222EE	PIC16C54C-20/I/SO	18	OTP	20	512	25	12	..... 2.35	2.15	
<b>247231EE</b>	PIC16C54C-20/SS	20	OTP	20	512	25	12	..... 2.55	2.35	
<b>247249EE</b>	PIC16C55A-20/I/P	28	OTP	20	512	24	20	..... 2.95	2.85	
<b>247257EE</b>	PIC16C55A-20/SO	28	OTP	20	512	24	20	..... 3.05	2.75	
134172EE	PIC16C56-RC/P	18	OTP	20	1k	25	12	..... 4.49	3.69	
<b>247265EE</b>	PIC16C56A-20/I/P	18	OTP	20	1k	25	12	..... 2.85	2.55	
<b>247273EE</b>	PIC16C56A-20/SO	18	OTP	20	1k	25	12	..... 2.65	2.35	
<b>247281EE</b>	PIC16C57C-20/P	28	OTP	20	2k	72	20	..... 3.45	3.05	
247290EE	PIC16C57C-20/SO	28	OTP	20	2k	72	20	..... 3.65	3.25	
<b>247302EE</b>	PIC16C58B-20/P	18	OTP	20	2k	73	12	..... 2.75	2.45	
247311EE	PIC16C58B-20/SO	18	OTP	20	2k	73	12	..... 2.85	2.55	
193383EE	PIC16C622A-04/P	18	OTP	4	2k	128	13	..... 2.69	2.29	
193359EE	PIC16C711-04/P	18	OTP	4	1k	68	13	..... 3.99	2.29	
193439EE	PIC16F627-20/P	18	Flash	20	1k	224	16	..... 3.29	2.55	
193447EE	PIC16F628-20/P	18	Flash	20	2k	224	16	..... 3.69	2.69	
246730EE	PIC16F628-20/SO	18	Flash	20	2k	224	16	..... 3.79	2.85	
246748EE	PIC16F628-20/SS	20	Flash	20	2k	224	16	..... 4.05	3.15	
246756EE	PIC16F628-20/I/P	18	Flash	20	2k	224	16	..... 4.05	3.15	
246764EE	PIC16F628-20/SO	18	Flash	20	2k	224	16	..... 4.09	3.02	
<b>247126EE</b>	PIC16F630-I/SL	14	Flash	20	1k	128	12	..... 1.85	1.65	
<b>247134EE</b>	PIC16F630-I/ST	14	Flash	20	1k	128	12	..... 2.05	1.85	
<b>247142EE</b>	PIC16F648A-I/P	18	Flash	20	4k	256	16	..... 3.25	2.55	
<b>247151EE</b>	PIC16F648A-I/SO	18	Flash	20	4k	256	16	..... 3.25	2.55	
247169EE	PIC16F648A-I/SS	20	Flash	20	4k	256	16	..... 3.59	2.66	
247177EE	PIC16F676-I/SL	14	Flash	20	1k	64	12	..... 2.15	1.95	
<b>247185EE</b>	PIC16F676-I/ST	14	Flash	20	1k	64	12	..... 2.35	2.00	
246801EE	PIC16F73-I/SO	28	Flash	20	4k	192	22	..... 5.15	4.55	
193391EE	PIC16F73-I/SP	28	Flash	20	4k	192	5	..... 5.19	4.19	
246810EE	PIC16F73-I/SS	28	Flash	20	4k	192	22	..... 5.25	4.65	
246772EE	PIC16F74-I/L	44	Flash	20	4k	192	33	..... 6.95	6.45	
246781EE	PIC16F74-I/P	44	Flash	20	4k	192	33	..... 7.45	6.55	
246828EE	PIC16F76-I/SO	28	Flash	20	8k	368	22	..... 6.35	5.65	
246836EE	PIC16F76-I/SS	28	Flash	20	8k	368	22	..... 6.49	5.52	
246799EE	PIC16F77-I/L	44	Flash	20	8k	368	33	..... 7.85	6.99	
247054EE	PIC16F818-I/SO	18	Flash	20	1k	128	16	..... 3.15	2.45	
<b>247062EE</b>	PIC16F818-I/SS	20	Flash	20	1k	128	16	..... 3.35	2.65	
247089EE	PIC16F819-I/SO	18	Flash	20	2k	256	16	..... 3.55	2.75	
247071EE	PIC16F819-I/SS	20	Flash	20	2k	256	16	..... 3.85	2.95	
145111EE	PIC16F84-04/P	18	Flash	4	1k	68	13	..... 6.59	4.39	
145120EE	PIC16F84-10/P	18	Flash	10	1k	68	13	..... 7.09	5.99	
193332EE	PIC16F84A-20/P	18	Flash	20	1k	68	13	..... 5.79	4.69	
246844EE	PIC16F84A-20/SO	18	Flash	20	1k	68	13	..... 5.75	5.05	
246852EE	PIC16F84A-20/SS	20	Flash	20	1k	68	13	..... 6.15	5.75	
246861EE	PIC16F84A-20/I/P	18	Flash	20	1k	68	13	..... 6.25	5.55	
246879EE	PIC16F84A-20/SO	18	Flash	20	1k	68	1			

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

**MICROCHIP PIC Microcontrollers (Continued)**

Part No.	Product No.	Pkg. Pins	Speed (MHz)	ROM Bits	RAM Bytes	I/O Pins	1	25
193367EE	PIC16F876-20/SP	28	Flash 20	256	368	22	\$7.89	\$6.69
247020EE	PIC16F876A-I/SO	28	Flash 20	8k	368	22	6.65	5.85
247011EE	PIC16F876A-I/SP	28	Flash 20	8k	368	22	6.65	5.85
176882EE	PIC16F877-20/P	40	Flash 20	256	368	33	9.49	8.49
247046EE	PIC16F877A-I/L	44	Flash 20	8k	368	33	8.15	7.65
247038EE	PIC16F877A-I/P	40	Flash 20	8k	368	33	7.25	5.05
247345EE	PIC16HV540-20/P	18	OTP 20	512	25	12	2.35	2.05
247353EE	PIC16HV540-20/SO	20	OTP 20	512	25	12	2.35	2.00

**Easy Microcontrol'n**
**Beginners Guide (Version 4)**

**Square 1 Publishing** A revision of and successor to Easy PIC'n that covers Peripheral Interface Controller (PIC) PIC16F84, writing programs, interrupts, timing and counting. (178 pages, 2002)



Part No.	Description	Size	Weight	Price
215061EE	Easy Microcontrol'n' <b>— NEW</b>	8.5" x 11.0"	1.2 lbs.	\$29.95

**Microcontrol'n Apps**
**PIC Microcontroller Applications (Version 2)**

**Square 1 Publishing** This book is a revision of and the successor to PIC'n Up The Pace. Materials covered include talking to a PIC microcontroller with a PC running a terminal, simple data logger and digital voltmeter experiment, PIC16F87x and 10-bit A/D conversion. (437 pgs, 2002)



Part No.	Description	Size	Weight	Price
215052EE	Microcontrol'n Apps <b>— NEW</b>	8.5" x 11.0"	1.7 lbs.	\$44.95

**ATMEL AT89C Series**

 See more Atmel Series @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Product No.	Pins	Description	1	25
168874EE	AT89C2051-24PC	20	8-bit MCU, 24MHz 2kb flash memory	\$3.59	\$2.49
204089EE	AT89C4051-24PC	20	8-bit MCU, 24MHz 4kb flash mem. 8-bit	\$4.49	2.99
168903EE	AT89C51-24PC	40	8-bit MCU, 24MHz 4kb flash memory	4.49	3.99
168920EE	AT89C52-24PC	40	8-bit MCU, 24MHz 8kb flash mem.	\$4.39	3.39
168946EE	AT89C55WD-24PC	40	8-bit MCU, 24MHz 20kb flash mem.	6.99	6.79
204097EE	AT89S8252-24PC	40	8-bit MCU, 24MHz 8kb flash mem. 2kb EEPROM	4.69	3.69
204100EE	AT90S1200-12PC	20	20 AVR 8-bit RISC MCU, 12MHz 1kb prog. flash	2.39	1.99
248250EE	AT90S2313-10PC	20	8-bit AVR MCU, 10MHz 2kb prog. flash	3.25	2.69
204126EE	AT90S8515-8PC	40	40 AVR 8-bit RISC MCU, 8MHz 8kb prog. flash	7.95	5.79

**Basic Stamp Microcontrollers**
**80C52-BASIC Microcontroller**

The 80C52-BASIC chip is a custom-masked 80C52 microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter.

**Hardware:** • On-chip oscillator and clock circuit

• Operates DC to 12MHz • 256 x 8-bit RAM

**Software:** • Full BASIC interpreter in ROM on a single chip

• "Stand-alone" software development

• Interrupts can be handled by BASIC or Assembly Language



Part No.	Product No.	Description	1	10
125647EE	80C52BASIC	CPU 8-bit CMOS w/ BASIC interpreter	\$32.09	\$28.89

**GALs**

 See more GALs @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Cross Ref.	Pins	Description	1	10
38666EE	20V8-25*	24	25ns 64 x 40 AND array	\$1.69	\$1.49
39167EE	22V10-25	24	25ns 132 x 44 AND array lattice	3.99	3.49

GALs are electrically erasable PLDs that can be used in place of numerous PALs

\* Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

**IC Test Clip Series**

- Heavy-duty spring loaded hinge provides positive contact
- 20 AWG insulated gold contacts • Color: white



Part No.	Cross Ref.	Description	1	10
22103EE	JTC16	16-pin (for 8, 14 and 16-pin ICs)	\$6.95	\$6.25
22120EE	JTC20	20-pin (for 18 and 20-pin ICs)	8.95	6.50

COLOR CODE LEGEND...

NEW SALE REFURBISHED CLOSEOUT

**4000 Series**

 See more 4000 Series @ [www.Jameco.com/4000](http://www.Jameco.com/4000)

Part No.	Cross Ref.	Pins	Description	1	10
12562EE	CD4001**	14	Quad 2-input NOR gate	\$.29	\$.24
12634EE	CD4011**	14	Quad 2-input NAND gate	\$.29	\$.24
12677EE	CD4013**	14	Dual D flip-flop with set/reset	.35	.25
12706EE	CD4015*	16	Dual 4-stage static shift register	.45	.37
12722EE	CD4016*	14	Quad bilateral switch	.28	.24
12749EE	CD4017*	16	Decade counter/divider	.39	.35
12802EE	CD4020*	16	14-stage binary/ripple counter	.49	.39
12845EE	CD4023*	14	Triple 3-input NAND gate	.28	.23
12853EE	CD4024*	14	7-stage binary counter	.32	.27
12950EE	CD4040*	16	12-stage binary/ripple counter	.32	.27
13055EE	CD4049**	16	HEX/buffer/converter (Inverting)	.29	.24
13071EE	CD4050*	16	Hex/buffer/converter (N-inverting)	.25	.21
13098EE	CD4051*	16	Single 8-channel multi./demultiplexer	.45	.39
13127EE	CD4053	16	Triple 2-channel multi./demultiplexer	.41	.34
13186EE	CD4066**	14	Quad bilateral switch	.35	.25
13231EE	CD4069*	14	Hex inverter (74C04)	.30	.24
13258EE	CD4070*	14	Quad EXCLUSIVE-OR gate (74C86)	.28	.24
13354EE	CD4081*	14	Quad 2-input AND gate	.28	.26
13400EE	CD4093*	14	Quad 2-input NAND Schmitt trigger	.29	.25
13493EE	CD4511*	16	BCD to 7-seg. latch/decoder/driver	.69	.59
13581EE	CD4520	16	Dual binary up counter	.33	.28
13611EE	CD4528	16	Dual monostable multivibrator	.86	.73
13653EE	CD4538*	16	Dual precision monostable multivibrator	.59	.49
13696EE	CD4543*	16	BCD to 7-segment decoder (LCD)	.59	.45
13709EE	CD4553	16	3-digit BCD counter	2.95	2.75

\* 10 pieces in 4000 kit, P/N 84970EE (see web) \*\* 20 pieces in 4000 kit, P/N 84970EE (see web)

**7400 Series**

 See more 7400 Series @ [www.Jameco.com/7400](http://www.Jameco.com/7400)

Part No.	Cross Ref.	Pins	Description	1	10
48979EE	7400N**	14	Quad 2-input NAND gate	\$.65	\$.55
49015EE	7402N*	14	Quad 2-input NOR gate	.68	.56
49040EE	7404N**	14	Hex inverter	.59	.49
49091EE	7406N** <b>— NEW</b>	14	Hex inverter buffer/driver (O.C.)	.52	.45
49120EE	7407N**	14	Hex buffer/driver (O.C.)	.40	.37
49146EE	7408N*	14	Quad 2-input AND gate	.82	.63
49728EE	7417N*	14	Hex buffer/driver (O.C. hi-voltage)	.91	.77
50235EE	7432N*	14	Quad 2-input OR gate	.74	.64
50403EE	7445N	16	BCD-to-decimal decoder/driver (30V)	1.19	1.05
50420EE	7447N*	16	BCD-to-7 segment decoder/driver (15V)	1.49	1.29
50551EE	7474N** <b>— NEW</b>	14	Dual D flip-flop	.59	.49
50577EE	7475N	16	4-bit bi-stable latch	2.95	2.75
50593EE	7476N	16	Dual JK flip-flop with preset & clear	1.49	1.41
50631EE	7483N	16	4-bit binary full adder	1.05	.91
50665EE	7486N	14	Quad EXCLUSIVE-OR gate	1.05	.85
50681EE	7489N	16	64-bit RAM P 50ns	3.49	3.19
50690EE	7490N	14	Decade counter	1.49	1.27
50745EE	7493N	14	4-bit binary counter	1.49	1.34
49322EE	74121N <b>— NEW</b>	14	Monostable multivibrator	1.15	1.05
49509EE	74150N	24	16 to 1 line multiplexer	1.95	1.75
49568EE	74154N <b>— NEW</b>	24	4 to 16 line decoder/demultiplexer	2.25	1.95
49883EE	74189N	16	64-bit RAM tri-state (DM8599N)	3.39	2.89
49912EE	74192N	16	Decade up/down counter with clear	3.69	3.39
88225EE	SDLD001A	—	Texas Instruments TTL Data Book	34.95	31.49

\* 10 pcs. included in 7400 kit, P/N 84953EE (see web) \*\* 20 pcs. included in 7400 kit, P/N 84953EE (see web)

**74AC Series**

 See more 74AC Series @ [www.Jameco.com/74AC](http://www.Jameco.com/74AC)

Part No.	Cross Ref.	Pins	Description	1	10
211801EE	74AC00N	14	Quad 2-input NAND gate	\$.25	\$.21
211810EE	74AC02N	14	Quad 2-input NOR gate	.20	.17
211828EE	74AC04N	14	Hex inverter	.24	.20
238887EE	74AC10	14	Triple 3-input NAND gate	.25	.24
211844EE	74AC14N	14	Hex inverter with Schmitt trigger input	.21	.18
238836EE	74AC20	14	4-input NAND gate	.35	.29
211852EE	74AC32N	14	Quad 2-input OR gate	.21	.18
211861EE	74AC74N	14	Dual D-type pos. edge-triggered flip-flop	.27	.24
211887EE	74AC138N	16	1 of 8 decoder/demultiplexer	.42	.32
238730EE	74AC139	16	Dual 1 of 4 decoder/demultiplexer	.44	.37
238748EE	74AC151	16	8-input multiplexer	.42	.32
211895EE	74AC240N	20	Octal buffer/line driver w/ 3-state outputs	.30	.241
238844EE	74AC241	20	Octal buffer/line driver w/ 3-state outputs	.41	.33
211908EE	74AC244N	20	Octal buffer/line driver w/ 3-state outputs	.29	.25
238879EE	74AC257	16	Quad 2-input multiplexer	.38	.35
211932EE	74AC373N	20	Octal transparent latch with 3-state outputs	.40	.36
211941EE	74AC374N	20	Octal D-type flip-flop with 3-state outputs	.51	.43

COLOR CODE LEGEND...

NEW SALE REFURBISHED CLOSEOUT

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

**74ACT Series**See more 74ACT Series @ [www.Jameco.com/74ACT](http://www.Jameco.com/74ACT)

Part No.	Cross Ref.	Pins	Description	1	10
211967EE	74ACT02N	14	Quad 2-input NOR gate	\$.28	\$.24
211975EE	74ACT04N	14	Hex inverter	.25	.21
211983EE	74ACT08N	14	Quad 2-input AND gate	.20	.16
239046EE	74ACT10	14	Triple 3-input NAND gate	.20	.18
211991EE	74ACT14N	14	Hex inverter with Schmitt trigger input	.23	.20
212003EE	74ACT32N	14	Quad 2-input OR gate	.28	.24
212011EE	74ACT74N	14	Dual D-type pos. edge-triggered flip-flop	.25	.21
212038EE	74ACT138	16	1 of 8 decoder/demultiplexer	.23	.20
239011EE	74ACT139	16	Dual 1 of 4 decoder/demultiplexer	.38	.32
239020EE	74ACT151	16	8-input multiplexer	.51	.39
212046EE	74ACT240N	20	Octal buffer/line driver with 3-state outputs	.30	.26
239097EE	74ACT241	20	Octal buffer/line driver with 3-state outputs	.41	.33
212054EE	74ACT244N	20	Octal buffer/line driver with 3-state outputs	.41	.33
212062EE	74ACT245N	20	Octal bidirectional trans. with 3-state outputs	.38	.33
212071EE	74ACT273N	20	Octal D-type flip-flop	.37	.31
212089EE	74ACT373N	20	Octal transparent latch with 3-state outputs	.41	.33
212097EE	74ACT374N	20	Octal D-type flip-flop with 3-state outputs	.40	.33
235264EE	74ACT541N	20	Octal buffer/line driver with 3-state outputs	.41	.33
235272EE	74ACT573N	20	Octal latch with 3-state outputs	.57	.54
235281EE	74ACT574N	20	Octal D-type flip-flop	.57	.48

**74F Series**See more 74F Series @ [www.Jameco.com/74F](http://www.Jameco.com/74F)

Part No.	Cross Ref.	Pins	Description	1	10
286985EE	74F00	14	Quad 2-input NAND gate	* \$.141	
286993EE	74F02	14	Quad 2-input NOR gate	.25	.216
287005EE	74F04	14	Hex inverter	.21	.158
287013EE	74F08	14	Quad 2-input AND gate	.20	.158
287021EE	74F14	14	Hex inverter w/Schmitt trigger	.22	.191
287030EE	74F20	14	Dual 4-input NAND gate	.21	.174
287048EE	74F32	14	Quad 2-input OR gate	.20	.183
287064EE	74F86	14	Quad 2-input NOR gate	.32	.266
287072EE	74F138	16	3 to 8 decoder/demultiplexer	.37	.299
287081EE	74F139	16	1 of 4 decoder/demultiplexer	.26	.216
287110EE	74F244	20	Octal buffer/line driver w/3-state outputs	.39	.299
287144EE	74F245	20	Octal bus transceiver w/3-state outputs	.53	.402
287099EE	74F273	20	Octal D-type flip-flop	.48	.415
287161EE	74F373	20	Octal transparent D-type latch w/ 3-state outputs	.45	.398
287187EE	74F374	20	Octal edge trig. D-type flip-flop w/ 3-state outputs	.35	.274
287195EE	74F573	20	Octal reg. latch with 3-state outputs	.39	.299

**74HC Series**See more 74HC Series @ [www.Jameco.com/74HC](http://www.Jameco.com/74HC)

Part No.	Cross Ref.	Pins	Description	1	10
45161EE	74HC00	14	Quad 2-input NAND gate (6231581)	\$.22	\$.19
45188EE	74HC02	14	Quad 2-input NOR gate	* .15	
45209EE	74HC04	14	Hex inverter (buffered)	.24	.208
45364EE	74HC14	14	Hex inverter Schmitt trigger	.22	.19
45794EE	74HC32	14	Quad 2-input OR gate	.28	.24
46130EE	74HC74	14	Dual D flip-flop	.35	.32
45330EE	74HC138	16	3-to-8 decoder/demultiplexer	.30	.27
45541EE	74HC192	16	Decade up/down counter with clear	1.59	1.45
45612EE	74HC240	20	Octal inverting line driver tri-state	.34	.29
45655EE	74HC244	20	Octal driver tri-state	.45	.39
45831EE	74HC373	20	Octal D-type flip-flop tri-state	.45	.39
45858EE	74HC374	20	Octal D-type flip-flop edge-trig tri-state	.49	.39
46050EE	74HC541	20	Octal buffer/line driver tri-state	.34	.305
46084EE	74HC574	20	Octal D-type flip-flop tri-state	.37	.31
46105EE	74HC595	16	8-bit serial-to-parallel shift reg. tri-state	.62	.44
272057EE	74HC4049N	16	Hi speed HEX inverting buffers	.36	.34
272073EE	74HC4050N	16	Hi speed HEX non-inverting buffers	.41	.332
88102EE	74HC4051N	16	Single 8-channel multiplexer/demultiplexer	.37	.31
272090EE	74HC4052N	16	Hi speed analog multiplexer/demultiplexer	.44	.329
272129EE	74HC4053N	16	Hi speed analog multiplexer/demultiplexer	.32	.266
45971EE	74HC4066N	14	Quad analog switch	.41	.332

**74HCT Series**See more 74HCT Series @ [www.Jameco.com/74HCT](http://www.Jameco.com/74HCT)

Part No.	Cross Ref.	Pins	Description	* Prepackaged: order in increments of 10	
				1	10
44871EE	74HCT00	14	Quad 2-input NAND gate (Y560820T)	\$.24	\$.20
44989EE	74HCT04	14	Hex inverter	.23	.20
44901EE	74HCT08	14	Quad 2-input AND gate	* .141	
44935EE	74HCT14	14	Hex inverter Schmitt trigger	.20	.158
45057EE	74HCT32	14	Quad 2-input OR gate	* .149	
45137EE	74HCT74	14	Dual D flip-flop	.25	.21
44927EE	74HCT138	16	3-to-8 decoder/demultiplexer	.33	.282
63773EE	74HCT139	16	2-to-4 decoder/demultiplexer	.32	.266
88057EE	74HCT154	24	4-to-16 decoder/demultiplexer	1.05	.82
45014EE	74HCT240	20	Octal inverting line driver tri-state	.32	.29
45022EE	74HCT244	20	Octal driver tri-state	.36	.32
45031EE	74HCT245	20	Octal transceiver tri-state	.37	.30
45049EE	74HCT273	20	Octal D-type flip-flop with clear	.30	.26
45065EE	74HCT373	20	Octal D-type flip-flop tri-state	.39	.299
45073EE	74HCT374	20	Octal D-type flip-flop edge-trig. TS	.24	.20
99303EE	74HCT541	20	Octal buffer/line driver tri-state	.41	.35
45090EE	74HCT573	20	Octal D-type latched flip-flop tri-state	.35	.30
45102EE	74HCT574	20	Octal D-type flip-flop edge-trigger tri-state	.39	.30
45129EE	74HCT688	20	8-bit magnitude comparator	.58	.49

**74C Series**See more 74C Series @ [www.Jameco.com/74C](http://www.Jameco.com/74C)

Part No.	Cross Ref.	Pins	Description	1	10
44222EE	74C00	14	Quad 2-input NAND gate	\$1.05	\$.89
44231EE	74C04	14	Hex inverter (CD4069)	1.05	.89
44564EE	74C922	18	16-key keyboard encoder (INS8245N)	6.29	5.79
44572EE	74C923	20	20-key keyboard encoder (INS8246N)	5.99	5.09

**74S Series**See more 74S Series @ [www.Jameco.com/74S](http://www.Jameco.com/74S)

Part No.	Cross Ref.	Pins	Description	1	10
48531EE	74S188N NEW	16	256-bit (32 x 8) PROM O.C. (27S18)	\$4.39	\$3.95
48696EE	74S287N NEW	16	1k-bit (256 x 4) PROM tri-state (TBP24S10)	8.95	7.85

**74LS Series**See more 74LS Series @ [www.Jameco.com/74LS](http://www.Jameco.com/74LS)

Part No.	Cross Ref.	Pins	Description	1	10
46252EE	74LS00**	14	Quad 2-input NAND gate	\$.41	\$.27
46287EE	74LS02**	14	Quad 2-input NOR gate	.41	.25
46316EE	74LS04**	14	Hex inverter	.41	.26
46341EE	74LS05*	14	Hex inverter (O.C.)	.41	.332
46359EE	74LS06N NEW	14	Hex inverter buffer/driver (O.C.)	.64	.54
46367EE	74LS07	14	Hex buffer/driver (O.C. hi-voltage)	.55	.49
46375EE	74LS08**	14	Quad 2-input AND gate	.36	.31
46404EE	74LS10*	14	Triple 3-input NAND gate	.30	.20
46439EE	74LS11*	14	Triple 3-input AND gate	.41	.332
46640EE	74LS14*	14	Hex inverter Schmitt trigger	.37	.299
47095EE	74LS20*	14	Dual 4-input NAND gate	.28	.191
47458EE	74LS30*	14	8-input NAND gate	.41	.332
47466EE	74LS32**	14	Quad 2-input OR gate	.29	.26
47693EE	74LS38	14	Quad 2-input NAND gate buffer (O.C.)	.33	.224
47773EE	74LS42N NEW	16	BCD-to-decimal decoder/driver	.76	.65
47790EE	74LS47*	16	BCD to 7-seg. decoder/driver (O.C.)	.72	.52
47811EE	74LS48	16	BCD to 7-seg. decoder/driver	4.99	4.24
47992EE	74LS73*	14	Dual JK flip-flop with clear	.37	.338
48004EE	74LS74**	14	Dual D flip-flop	.36	.25
48021EE	74LS75*	16	4-bit bi-stable latch	.86	.73
48039EE	74LS76	16	Dual JK flip-flop with preset and clear	.69	.62
48071EE	74LS85*	16	4-bit magnitude comparator	.42	.382
48098EE	74LS86*	14	Quad EXCLUSIVE-OR gate	.35	.30
48119EE	74LS90*	14	Decade counter	.49	.45
48151EE	74LS93*	14	4-bit binary counter	.89	.79
46412EE	74LS107N NEW	14	Dual JK flip-flop with clear	.72	.51
46480EE	74LS123*	16	Dual mono. multivibrator with clear	.45	.35
46501EE	74LS125*	14	Quad bus buffer neg. enable tri-state	.5046	.33
46607EE	74LS138*	16	3 to 8 decoder/demultiplexer	.45	.35
46623EE	74LS139*	16	2 to 4 decoder/demultiplexer	.41	.35
46703EE	74LS151*	16	8-bit input multiplexer	.45	.349
46738EE	74LS154	24	4 to 16 line decoder/demultiplexer	5.15	4.59

\* 10 pieces in 74LS kit, pg 34 \*\* 20 pieces in 74LS kit, pg 34

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

**74LS Series (Continued)** See more 74LS Series @ [www.Jameco.com/74LS](http://www.Jameco.com/74LS)

Part No.	Cross Ref.	Pins	Description	1	10
46754EE	74LS155*	16	Dual 2/4 demultiplexer	\$.64	\$.54
46771EE	74LS157*	16	Quad 2/1 data selector	.45	.349
46818EE	74LS161	16	Synch 4-bit counter	\$.051	.46
46851EE	74LS164	14	8-bit serial shift register	.43	.36
46931EE	74LS174*	16	Hex D flip-flop with clear	.46	.299
46957EE	74LS175*	16	Quad D flip-flop with clear	\$.040	.26
46990EE	74LS190	16	Synchronous up/down counter	2.95	2.65
47010EE	74LS192	16	Decade up/down counter with clear	3.95	3.59
47036EE	74LS193*	16	Binary up/down counter with clear	.59	.49
47052EE	74LS194N NEW	16	4-bit bi-directional shift register	.74	.63
47141EE	74LS240*	20	Octal invert. line driver tri-state	\$.039	.32
47167EE	74LS241	20	Octal bus/line driver tri-state	.36	.299
47183EE	74LS244*	20	Octal driver tri-state	.44	.37
47212EE	74LS245*	20	Octal bus transceiver tri-state	.53	.40
47247EE	74LS247	16	BCD to 7-segment decoder/driver (O.C.)	.94	.80
47386EE	74LS273*	20	Octal D-type flip-flop with clear	.45	.357
30928EE	74LS368AN NEW	20	Hex bus driver w/ tri-state	.39	.332
47600EE	74LS373*	20	Octal D flip-flop tri-state	.45	.39
47634EE	74LS374*	20	Octal D/F/F edge-trig tri-state	.45	.39
47669EE	74LS377	20	Octal D register common enable	.31	.20
47722EE	74LS390	16	Dual 4-bit decade counter	.69	.59
30930EE	74LS423AN NEW	14	Retrig monostable multivibrator	.95	.79
47861EE	74LS540	20	Octal invert. buffer/line driver tri-state	\$.089	.69
47870EE	74LS541	20	Octal buffer/line driver tri-state	.46	.39
64418EE	74LS573	20	Octal D-type F/F latch tri-state	2.05	1.85
30926EE	74LS682N NEW	20	8-bit magnitude comparator	1.05	.86
47984EE	74LS688	20	8-bit magnitude comparator	\$.088	.80

\*10 pieces in 74LS kit, pg 34 \*\*20 pieces in 74LS kit, pg 34

**74ALS Series**

 See more 74ALS Series @ [www.Jameco.com/74ALS](http://www.Jameco.com/74ALS)


Part No.	Cross Ref.	Pins	Description	1	10
309614EE	74ALS138N	16	3 to 8 line decoder/demultiplexer	\$.46	\$.349
309649EE	74ALS139N	16	2 to 4 line decoder/demultiplexer	.59	.448
309761EE	74ALS161BN	16	4-bit decade/binary counter	.42	.34
309702EE	74ALS174N	8	Quad D-type flip-flop w/ clear	.53	.398
309729EE	74ALS175N	16	Quad D-type flip-flop w/ clear	.52	.398
309796EE	74ALS688N	20	8-bit identity comparator	2.95	2.39

**74AHC Series**

 See more 74AHC Series @ [www.Jameco.com/74AHC](http://www.Jameco.com/74AHC)

Part No.	Cross Ref.	Pins	Description	1	10
214092EE	74AHC00N	14	Quad 2-input positive NAND gate	\$.32	\$.27
214105EE	74AHC02N	14	Quad 2-input positive NOR gate	.32	.27
214113EE	74AHC04N	14	Hex inverter	.32	.27
214130EE	74AHC14N	14	Hex inverter with Schmitt trigger input	.32	.29
214148EE	74AHC32N	14	Quad 2-input positive OR gate	.36	.29
214156EE	74AHC74N	14	Dual D-type pos. edge-trigg. flip-flop	.26	.22
243213EE	74AHC138N	16	3-line to 8-line decoders/demultiplexers	.40	.324
214172EE	74AHC240N	20	Octal buffer/driver w/ 3-st. outputs	.31	.28
214181EE	74AHC244N	20	Octal buffer/driver w/ 3-st. outputs	.33	.27
214199EE	74AHC245N	20	Octal bus transceiver w/ 3-st. outputs	.33	.27
214201EE	74AHC373N	20	Octal transprt. D-type latch w/ 3-st. outputs	.26	.24
214210EE	74AHC374N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.26	.24
214228EE	74AHC541N	20	Octal buffer/driver w/ 3-state outputs	.33	.27
214236EE	74AHC574N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.33	.27

**74AHCT Series**

 See more 74AHCT Series @ [www.Jameco.com/74AHCT](http://www.Jameco.com/74AHCT)

Part No.	Cross Ref.	Pins	Description	1	10
43844EE	74AHCT00N	14	Quad 2-input positive NAND gate	\$.21	\$.15
43852EE	74AHCT02N	14	Quad 2-input positive NOR gate	.32	.27
43861EE	74AHCT04N	14	Hex inverter	.30	.266
63431EE	74AHCT08N	14	Quad 2-input positive AND gate	.30	.22
63458EE	74AHCT14N	14	Hex inverter with Schmitt trigger input	.32	.27
43924EE	74AHCT74N	14	Dual D-type pos. edge-triggered flip-flop	.32	.27
243248EE	74AHCT138N	16	3-line to 8-line decoders/demultiplexers	.36	.32
243256EE	74AHCT139N	16	Dual 2-line to 4-line decoders/demultiplexers	.26	.252
214244EE	74AHCT240N	20	Octal buffer/driver w/ 3-state outputs	.26	.22
63466EE	74AHCT24N	20	Octal buffer/driver w/ 3-state outputs	.26	.216

**74AHCT Series (Continued)**

Part No.	Cross Ref.	Pins	Description	1	10
43887EE	74AHCT245N	20	Octal bus transceiver w/ 3-state outputs	\$.33	\$.27
43908EE	74AHCT373N	20	Octal transparent D-type latch w/ 3-st. outputs	.26	.22
43916EE	74AHCT374N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.26	.22
214252EE	74AHCT574N	20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	.39	.299

**9000 Series**

Part No.	Cross Ref.	Pins	Description	1	10
53663EE	9368	16	FND70 driver/latch	\$4.49	\$3.95
10567EE	AM9513APC	40	System timing controller	39.95	35.95

♦ Pull = Extra Savings

**DALLAS Semiconductor**

 See more Dallas @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Product No.	Pins	Description	1	10
133410EE	DS1216C	28	Smartwatch/RAM 64K/256K	\$31.89	\$27.69
114278EE	DS1225AB-150	28	64K nonvol. SRAM 5%pwrr. 4.62V WP	17.29	14.49
177113EE	DS1230Y-100	28	256K nonvol. SRAM 10%pwrr. 4.37V WP	17.75	13.75
176778EE	DS1302	8	Trickle charge time keeping IC	2.75	2.10
114374EE	DS1387	24	RAMified real time clock 4kx8	8.59	7.99
114382EE	DS1620	8	Digital thermometer & thermostat	6.29	5.05
133452EE	DS12887	24	Real time clock chip	8.15	6.25

♦ Pull = Extra Savings

**Maxim-Type Interface Series**

Part No.	Cross Ref.	Pins	Description	1	10
142535EE	MAX202CPE	16	+5V RS-232 trans. requires 0.1µF caps	\$2.65	\$2.10
244241EE	MAX202EPE	16	+5V RS-232 Transceivers	1.13	.99
24811EE	MAX232CPE	16	+5V powered, dual RS-232 transmitter/receiver (0°C to +70°C)	2.19	1.85
106147EE	MAX232CWE	16	+5V powered, dual RS-232 (SOIC) trans./rcvr.	2.75	2.10
106155EE	MAX232EPE	16	+5V powered, dual RS-232 transmitter/receiver (-40°C to +85°C)	3.29	2.52
106163EE	MAX233CPP	20	+5V powered, multichannel RS-232 drivers/receivers (no ext. components)	6.19	4.99
106171EE	MAX235CPG	24	+5V powered, five RS-232 transmitter/receiver (no ext. components)	13.39	10.51
242085EE	MAX626CPA	8	Dual 1.5A-peak low-side MOSFET driver	1.14	.93
244195EE	MAX1487CPA	8	RS-485/RS-422 low-power transceivers	2.39	1.99

♦ Surface mount

**Interface Series**

Part No.	Cross Ref.	Pins	Description	1	10
291670EE	MAX712CPE	16	NiCD/NiMH battery fast charge controller	\$6.99	\$5.36

**Digital Interface ICs**

 See more @ [www.Jameco.com/IC](http://www.Jameco.com/IC)
**Stepper Motor Controllers**

Designed to interface a logic level input byte to a stepper motor.

Part No.	Product No.	Pins	Description	1	10
141532EE	EDE1200	18	Unipolar stepper motor controller	\$8.29	\$6.90
157526EE	EDE1204	18	Bipolar stepper motor controller	8.29	6.90
171969EE	EDE1144	18	Keypad encoder	6.99	5.65
171951EE	EDE702	18	Serial LCD interface	8.99	7.65

**5000 Series and Clock Chips**

Part No.	Cross Ref.	Pins	Description	1	10
32803EE	TCM5089N	16	Integrated tone dialer chip	\$4.99	\$4.49
25101EE	MC146818	24	Real time clock plus RAM	4.09	3.48

♦ Pull = Extra Savings

**Encoders/Decoders**

 See more Encoders/Decoders @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Product No.	Pins	Description	1	10
123730EE	HT12E	18	Encoder 12-bit	\$1.69	\$1.49
287945EE	MCP2140-I/P	18	IrDA controller, +DTE/DCE endec	2.29	2.26
296702EE	MC145026P	16	Encoder, 9-line, simplex, OSC	1.99	1.29
296711EE	MC145027P	16	Decoder, 5-line simplex, OSC	2.25	1.55
296729EE	MC145028P	16	Decoder, 5-line simplex, OSC	2.75	1.85

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

**Linear and Interface IC Kit**

10 each: TL072CP, TL074CN, TL082CP, TL084CN, MAX232CPE, LM301N, LM308N, LM311N, LM337T, LF353N, LF356N, LM358N, LM386N-1, LM386N-3, LM393N, LF411CN, LF412CN, LMC555CN, LM556N, LM723CN, LM1458N, DS1488N, DS1489N, ULN2003AN, ULN2803A, NE5532N, 7808T, 78L12CZ, 7815T, 7905T, 7912CT, 7915CT

20 each: LM317T, LM324N, LM339N, LM741CN, LM555CN, 7805T, 78L05CZ, 7812T



SAVE \$59

Part No.	Description	Wt. (lbs.)	Price
84988EE	480 pcs. (40 types) analog IC kit	6.0	\$182.95

**Servo Motor Controller**See more @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Controllers operate from standard 8-bit serial interface (RS-232 or RS-485). Using RS-485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

**PIC-SERVO Motion Control Chipset for DC Motors**

- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)

Part No.	Cross Ref.	Pkg.	Description	1	10
146472EE	—	28/18	KAE PIC-SERVO chip set, 0.3" DIP	\$34.95	\$29.50
288067EE	L297/1	DIP-20	5V stepper motor controller	5.49	5.25
288091EE	L6202	DIP-18	36V DMOS full bridge motor driver	7.85	6.39
288112EE	L6506	DIP-18	5V stepper motor current controller	4.25	3.49

**A/D & D/A Converters**See more @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Cross Ref.	Pkg.	Description	1	10
43756EE	7107CPL	40	3 1/2-digit LED single-chip A/D converter	\$3.19	\$2.59
289588EE	TLC540IN	20	8-bit A/D w/MUX, sample & hold, serial, 75kHz	3.35	3.15
289625EE	TLC541IN	20	8-bit A/D w/MUX, sample & hold, serial, 40kHz	2.85	2.69
289692EE	TLC542CN	20	8-bit A/D w/OSC, 25kHz	2.55	2.47
289713EE	TLC545CN	28	8-bit A/D w/MUX, sample & hold, serial, 76kHz	5.45	5.35
289756EE	TLC548CP	8	8-bit A/D w/MUX, sample & hold, 1-ch, 45kHz	2.35	1.99
289810EE	TLC549CP	8	8-bit A/D w/sample & hold, 1-ch, 45kHz	1.99	1.76
10153EE	ADC0804LCN	20	8-bit A/D converter (1 LSB)	2.49	1.89
10170EE	ADC0808CCN	28	8-bit A/D convr. w/ 8-ch. multiflexer	4.99	4.19
10188EE	ADC0809CCN	28	8-bit A/D convr. w/ 8-ch. multiflexer	2.89	2.59
10225EE	ADC0820CCN	20	8-bit hi spd (1/2us) A/D w/ track&hold	2.99	2.29
116100EE	ADC0831CCN	8	8-bit A/D converter w/ single diff. input	1.95	1.75
290491EE	TLV0831CP	8	8-bit A/D multiplexer, serial, 49kHz	2.39	2.15
290554EE	TLV0832CP	8	8-bit A/D multiplexer, serial, 45kHz	2.39	2.29
290571EE	TLV0834IN	14	8-bit A/D, multiplexer, serial, 41kHz	2.65	2.57
290618EE	TLV0838CDW	20	8-bit A/D, multiplexer, serial, 38kHz	2.65	2.55
289019EE	TLC1541CN	20	10-bit A/D, 11-input serial, 32kHz	6.09	5.85
289107EE	TLC1542CN	20	10-bit A/D, 11-input serial, 32kHz	4.55	4.39
289465EE	TLC2543CN	20	12-bit A/D, 11-input serial, 66kHz	8.35	7.95
290669EE	TLV2543CDW	20	12-bit A/D, 11-channel, serial	8.35	7.95
115158EE	AD558JN	16	Microprocessor compat. 8-bit DAC	12.59	11.99
14904EE	DAC0800LCN	NEW 16	8-bit D/A (±1 LSB), 100ns	1.79	1.59
14947EE	DAC0808LCN	NEW 16	8-bit D/A (±1 LSB), 150ns (MC1408P8)	1.59	1.39
128186EE	DAC0832LCN	20	8-bit µP D/A conv. dbl. buff. (0.05 Lin.)	3.09	2.99
288936EE	TLC5620CN	14	8-bit D/A, 4-channel, serial	2.89	2.72
288979EE	TLC5628CN	16	8-bit D/A, 8-channel, serial	4.65	4.55
290976EE	TLV5628CN	16	8-bit D/A, 8-channel, serial	4.69	3.79
290052EE	TLC7524CN	16	8-bit D/A, multiplier, parallel	2.75	2.39
290087EE	TLC7528CN	20	8-bit D/A, multiplier, parallel	2.69	2.25
290263EE	ICL7135CPI	28	4 1/2-digit precision AD converter	5.79	4.70
287339EE	AD7628KN	20	8-bit D/A 2-input (+/-1lbs.), 350ns	4.35	3.79

**Voltage Regulators**See more @ [www.Jameco.com/IC](http://www.Jameco.com/IC)

Part No.	Cross Ref.	Pkg.	Description	1	10
192268EE	LM317AT	NEW TO-220/3	3-terminal adjustable reg. (1.2V-37V)	\$1.75	\$1.25
23552EE	LM317LZ	NEW TO-92	100mA adj. pos. reg. (1.2V-37V)	.23	.22
23579EE	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	.45	.39
23667EE	LM323K	TO-3/2	5V 3A positive reg.	2.89	2.75
23819EE	LM337T*	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V)	.59	.55
23835EE	LM338K	TO-3/2	5A adj. pos. reg. (1.2V-32V)	4.95	3.89

\* 10 pieces in Linear kit, pg 34 \*\* 20 pieces in Linear kit, pg 34

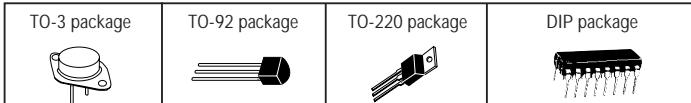
**Voltage Regulators (Continued)**

\* Prepackaged: please order in increments of 10

Part No.	Cross Ref.	Pkg.	Description	1	10
192284EE	LM338T	TO-220/3	5A adjustable regulator	\$1.99	\$1.49
23940EE	LM350T	TO-220/3	3 amp. adj. power regulator	1.09	.89
24467EE	LM723CN*	DIP-14	Voltage regulator (2V-37V)	.26	.24
290626EE	LM2596T	TO-220/7	Simple switcher 3A step-down volt. reg., pwr. con.	3.89	2.99
291012EE	LM2675N	8-Dip	Simple switcher 1A step-down volt. reg., pwr. con.	3.65	2.99
23368EE	LM2931CT	TO-220/5	3V-24V low dropout regulator	.66	.62
51262EE	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5)	.35	.32
51182EE	78L05**	TO-92	5V 100mA pos. voltage regulator	.27	.24
192233EE	78M05	TO-220/3	5V 500mA pos. voltage regulator	.35	.32
51300EE	7808T*	TO-220/3	8V 1A pos. voltage reg. (LM340T-8)	.46	.35
192225EE	78L09	TO-92	9V 100mA pos. voltage regulator	.24	.23
51334EE	7812T**	TO-220/3	12V 1A pos. voltage reg. (LM340T-12)	.35	.32
51203EE	78L12*	TO-92	12V 100mA pos. voltage regulator	*	.19
192241EE	78M12	TO-220/3	12V 500mA pos. voltage regulator	.31	.27
51457EE	7905T*	TO-220/3	5V 1A neg. voltage regulator	.42	.38
51481EE	7912CT*	TO-220/3	12V 1A neg. voltage regulator	.31	.27
51431EE	79L12	TO-92	12V 100mA neg. voltage regulator	.23	.21

\* 10 pieces in Linear kit, pg 34

\*\* 20 pieces in Linear kit, pg 34

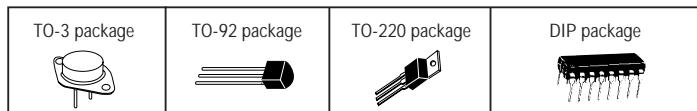
**Linear Series**See more Linear Series @ [www.Jameco.com/Linear](http://www.Jameco.com/Linear)

Part No.	Cross Ref.	Pkg.	Description	1	10
25751EE	MF10CN	DIP-20	General purpose dual active filter	\$3.09	\$2.37
120723EE	LM12CLK	TO-3/4	80W op amp.	23.45	21.10
107094EE	LM34CZ	TO-92	Prec. F temp. sensor (-40°F to +230°F)	4.89	4.52
155192EE	LM34DZ	TO-92	Prec. F temp. sensor (+32°F to +212°F)	1.99	1.67
302560EE	LM35CAZ	TO-92	Precision centigrade temperature sensor	5.19	4.14
107107EE	LM35CZ	TO-92	Prec. C temp. sensor (-40°C to 110°C)	5.35	4.10
192217EE	LM35DT	TO-220/3	Prec. C temp. sensor (-55°C to 150°C)	2.55	1.92
33195EE	TL072CP*	DIP-8	Low noise JFET dual op amp.	.26	.25
33216EE	TL074CN*	DIP-14	Low noise JFET quad op amp.	.48	.43
311845EE	LM75CIM-5	SOIC-8	Digital temp sensor w/ 2-wire interface	1.65	1.32
33267EE	TL084CN*	DIP-14	JFET input quad op amp.	.43	.40
310560EE	TPA122D	SOIC-8	150mW stereo audio power amplifier	.98	.83
239329EE	DG211CJ	DIP-16	SPST quad channel analog switch	1.99	1.75
23464EE	LM308N*	DIP-8	Precision op amp.	4.49	3.99
23528EE	LM311N*	DIP-8	Voltage comparator	.35	.25
23608EE	LM318N	DIP-8	Precision hi-speed op amp.	.59	.54
23632EE	LM319N	DIP-14	Hi-speed dual comparator	.41	.36
212169EE	LM324AN	DIP-14	Low power quad op amp.	.25	.23
23683EE	LM324N**	DIP-14	Low power quad op amp. (ULN4336)	.28	.24
23721EE	LM331N	DIP-8	Prec. volt to freq. convrtr. (150ppm/°C)	2.19	1.69
23739EE	LM334Z	TO-92	Adjust current source	.72	.65
23851EE	LM339N**	DIP-14	Quad low-power comparator	.38	.365
121099EE	LP339N	DIP-14	Quad low-power comparator	.38	.365
120862EE	LM358AN	DIP-8	Low power dual op amp. (elect improv.)	.29	.25
23966EE	LM358N*	DIP-8	Low power dual op amp.	.27	.23
24088EE	LM383T	TO-220/5	7-watt audio high power amp.	5.95	5.39
24133EE	LM386N-3*	DIP-8	Low voltage audio amp. 500mW/9V	.69	.59
24281EE	LM393N*	DIP-8	Dual comparator	.20	.18
23000EE	LF398N	DIP-8	Sample and hold circuit	1.09	1.00
245489EE	DG405DJ	DIP-16	Improved dual hi-speed analog switches	3.25	2.97
119950EE	LF412ACN	DIP-8	Dual JFET op-amp.	3.79	3.41
256487EE	DG444DJ	DIP-16	Improved quad SPST analog switch	1.39	1.30
27422EE	LM555CN**	DIP-8	Timer (MC1455P/NE555V)	.27	.23
126797EE	LM555CN*	DIP-8	CMOS 555 timer	.54	.49
24328EE	LM556N*	DIP-14	Dual 555 timer (MC3456P)	.77	.57
24352EE	LM565N	DIP-14	Phased locked loop	1.59	1.20
24395EE	LM567V	DIP-8	Tone decoder	.48	.45
27490EE	NE571N	DIP-16	Compressor, subscriber	3.29	2.99
313293EE	AD595AQ	DIP-14	Monolithic thermocouple amp	13.55	11.89
115174EE	AD620AN	DIP-8	Low cost instrument amplifier	16.15	14.85
115182EE	AD633JN	DIP-8	Low cost analog multiplier	7.75	6.97
120926EE	LM675T	TO-220/5	Power op amp.	6.19	5.25

\* 10 pcs. in Linear series IC cabinet kit, pg 34

\*\* 20 pieces in Linear kit, pg 34

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.


**Linear Series (Continued)** See more **Linear** @ [www.Jameco.com/Linear](http://www.Jameco.com/Linear)

Part No.	Cross Ref.	Pkg.	Description	1	10
288403EE	MAX693CPE	DIP-16	Microprocessor watchdog/battery	\$6.49	\$3.86
297684EE	MAX694CPA	DIP-8	Microprocessor supervisory circuit	6.59	3.86
24539EE	LM741CN**	DIP-8	Op amp. (JLN2151)	.29	.25
24563EE	LM747CN	DIP-14	Dual 741 op amp.	4.19	3.85
239265EE	LT1004CZ-2.5	TO-92	2.5V, micropower voltage reference	.68	.52
24942EE	MC1350P	DIP-8	Video IF amp (12V operation)	1.95	1.85
23131EE	LM1458N*	DIP-8	Dual op amp.	.29	.26
23211EE	LM1496N	DIP-14	Balanced mod./demodulator (MC1496P)	.65	.60
23270EE	LM1875T	TO-220/5	20-watt power audio amp.	\$1.95	1.45
107140EE	LM1881N	DIP-8	Video synchronous separator	2.69	2.05
243547EE	LM1894N	DIP-14	DNR noise reduction	2.79	2.14
310658EE	TLE2027CD	SOIC-8	Excalibur high-spd, low-pwr prec. op amp	1.75	1.65
34278EE	ULN2003A*	DIP-16	Hi-volt/curr. darl. transistor array	.39	.32
312063EE	SSM2141P	DIP-8	High common-mode rejection diff. line rec.	3.19	2.79
34972EE	XR2206	DIP-16	Monolithic function generator	3.59	3.29
34315EE	ULN2803A*	DIP-18	Hi-volt. hi-curr. darl. transistor array	.69	.59
23296EE	LM2901N	DIP-14	Quad comparator	.25	.21
23350EE	LM2917N-8	DIP-8	Frequency to volt converter	1.89	1.46
12183EE	CA3130E	DIP-8	CMOS op amp.	.81	.78
12204EE	CA3140E	DIP-8	Bi-MOS op amp.	.59	.55
12239EE	CA3161E	DIP-16	BCD to 7-seg. decoder driver	2.05	1.78

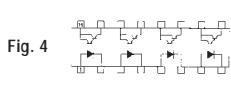
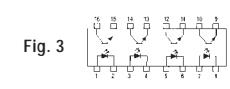
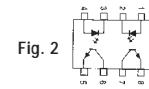
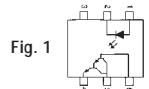
\*10 pcs. in Linear series IC cabinet kit, pg 34   \*\*20 pieces in Linear kit, pg 34

**Linear Series (Continued)**

Part No.	Cross Ref.	Pkg.	Description	1	10
25216EE	MC3479P	DIP-16	Biphase stepper motor driver	\$3.99	\$3.39
192516EE	LM3886T	TO-220/11	68W high perf. audio amp. with mute	4.35	3.32
24168EE	LM3900N	DIP-14	Quad amp. (CA3401)	.77	.65
24230EE	LM3914N	DIP-18	Bar-graph display driver	2.55	2.15
300003EE	LM3914N-1	DIP-18	Dot/bar display driver	1.65	1.54
24256EE	LM3915N	DIP-18	3 dB steps bar-graph disp. driver	2.49	1.99
24272EE	LM3916N	DIP-18	VU meter display driver	2.19	1.65
243580EE	LM4040AZ-5.0	TO-92	5.0V, precision micropower volt. reference	1.79	1.68
25275EE	MC4044P	DIP-14	Frequency phase detector (11C44)	9.99	7.49
29356EE	RC4136N	DIP-14	Quad op amp (XR4136)	.74	.68
243379EE	MM5453N	DIP-40	Liquid crystal display driver	3.65	2.80
27385EE	NE5532*	DIP-8	Dual low noise op amp.	.72	.55
27406EE	NE5534	DIP-8	Low noise op amp.	.78	.66
311001EE	MCP6002-I/P	DIP-8	1MHz bandwidth low-power op amp	.45	.42
251900EE	LMC7111AIN	DIP-8	Tiny CMOS op amp w/ rail to rail I/O	1.55	1.14
314691EE	ICL7136CPL	DIP-40	3 1/2 digit LCD LP display driver	4.89	4.65
511400EE	7555PA	DIP-8	CMOS timer (LM555CN)	.33	.31
241808EE	ICL7665CSPA	DIP-8	2-16V voltage detector	2.45	2.20
241816EE	ICL7673	DIP-8	Auto battery backup switch, 2.5V to 15V	1.05	.93
51879EE	8038CCPD	DIP-14	Precision wave form generator	3.29	3.15
241875EE	FAN8082	DIP-8	Bi-directional, 18V dc motor driver	\$0.95	.70
241867EE	FAN8200	DIP-14	Bi-directional, 2-ch, 18V step motor driver	\$0.85	.79
25021EE	MC14411P	DIP-24	Bit rate frequency generator	4.95	3.83
241841EE	MC14467	DIP-16	Smoke detector	1.35	.83
25064EE	MC14490P	DIP-16	Hex contact bounce eliminator	6.95	6.25
241832EE	MC145012	DIP-16	Smoke detector	2.19	1.53
118586EE	MC14515P*	DIP-28	Parallel input PLL freq. synthesizer	5.85	4.97

\*10 pcs. in Linear series IC cabinet kit, pg 34   \*\*20 pieces in Linear kit, pg 34   ♦ Pull = Extra Savings

**Optoisolators**

 See more **Optoisolators** @ [www.Jameco.com/Opto](http://www.Jameco.com/Opto)
**Optoisolators**


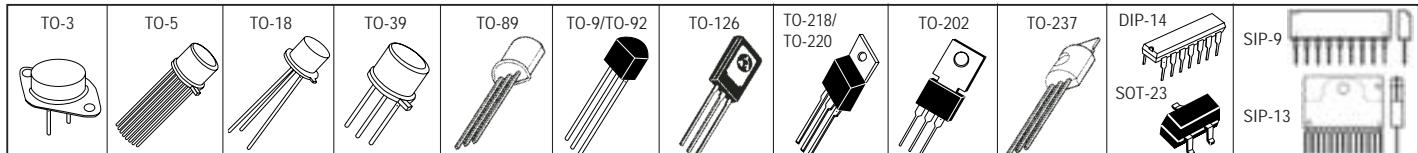
Part No.	Product No.	Mfg.	Fig.	Pins	Description	Forward (V)	Input Current (mA)	Blocking Voltage (V)	Isolation (kV)	Pricing	
										1	10
41021EE	4N32	♦	1	6	Diode, NPN photo-darlington	1.5	10	30	2.5	\$0.26	\$0.24
24918EE	MCT6	♦	2	8	Dual channel NPN photo transistor	1.3	100	30	7.5	.56	.52
160338EE	PS2501-4	♦	3	16	Photo Darlington & Transistor/Detector	1.2	20	—	—	1.09	1.02
160362EE	PS2502-4	♦	4	16	Photo Darlington & Transistor/Detector	1.2	10	—	—	1.75	1.61

♦ Manufacturer varies


**NTE Replacement and Design Semiconductors**

 NTE Replacement Semiconductors  
for Maintenance & Repair

Please call our sales rep. if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.


**Integrated Circuits**

Part No.	Cross Ref.	Pkg.	Description	1	10
260161EE	NTE778A	DIP-8	Dual operational amplifier	\$2.39	\$2.29
260179EE	NTE823	DIP-8	Low voltage audio amplifier	1.55	1.49
260187EE	NTE858M	DIP-8	Dual low noise JFET input op amp.	2.65	2.41
260195EE	NTE859	DIP-14	Quad low noise JFET input op amp.	3.75	3.55
260216EE	NTE941	TO-5/8	Operational amplifier	5.85	5.69
260224EE	NTE941M	DIP-8	Operational amplifier	.92	.88
260232EE	NTE947D	DIP-14	Dual operational amplifier	4.95	4.58
260241EE	NTE955M	DIP-8	Timing circuit	1.29	1.25
260347EE	NTE987	DIP-14	Quad low power operational amplifier	1.95	1.85
260355EE	NTE999	TO-92	Adjustable precision shunt regulator	1.02	.99
260128EE	NTE1714M	DIP-8	Remote control amplifier/driver	4.99	4.19
260136EE	NTE2014	DIP-16	7-channel darlington array drivers	2.85	2.69
260144EE	NTE2018	DIP-18	8-channel darlington array drivers	3.29	3.15

**Integrated Circuits (Continued)**

Part No.	Cross Ref.	Pkg.	Description	1	10
259291EE	NTE4001B	DIP-14	Quad 2-input NOR gate	\$.68	\$.65
259303EE	NTE4006B	DIP-14	18 stage static shift register	2.85	2.77
259311EE	NTE4013B	DIP-14	Dual D flip-flop w/ set/reset	1.10	1.06
259320EE	NTE4049	DIP-16	Hex buffer/Converter (Inverting)	1.22	1.18
259338EE	NTE4066B	DIP-14	Quad bilateral switch	1.42	1.37
259346EE	NTE4093B	DIP-14	Quad 2-input NAND Schmitt trigger	1.05	1.02
260152EE	NTE7039	SIP-13	Vert. deflection output circuit w/ drive circuit	3.19	3.09
259354EE	NTE7407	DIP-14	Hex buffer/driver	1.29	1.25
259362EE	NTE7408	DIP-14	Quad 2-input AND gate	1.06	1.03
259389EE	NTE7475	DIP-16	4-bit bi-stable latch	3.89	3.71
259371EE	NTE74121	DIP-14	Monostable multivibrator	2.29	2.21
259397EE	NTE75189	DIP-14	Quad line receiver	1.22	1.18

 COLOR CODE LEGEND...  
NEW SALE REFURBISHED CLOSEOUT

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

**Voltage Regulators**

Part No.	Cross Ref.	Pkg.	Description	1	10
261358EE	NTE309K	TO-3	+5V, 1A voltage regulator	\$8.05	\$7.85
260208EE	NTE931	TO-3	+5V, 3A voltage regulator	11.59	11.02
260259EE	NTE960	TO-220	+5V, 1A voltage regulator	1.65	1.59
260267EE	NTE961	TO-220	-5V, 1A voltage regulator	1.65	1.59
260275EE	NTE962	TO-220	+6V, 1A voltage regulator	1.32	1.28
260283EE	NTE964	TO-220	+8V, 1A voltage regulator	1.29	1.25
260291EE	NTE966	TO-220	+12V, 1A voltage regulator	1.65	1.59
260304EE	NTE967	TO-220	-12V, 1A voltage regulator	1.65	1.59
260312EE	NTE968	TO-220	+15V, 1A voltage regulator	1.65	1.59
260321EE	NTE971	TO-220	-24V, 1A voltage regulator	4.65	4.39
260339EE	NTE972	TO-220	+24V, 1A voltage regulator	1.65	1.59
261331EE	NTE1914	TO-3	+12V, 1A voltage regulator	3.75	3.72
261340EE	NTE1915	TO-3	-12V, 1A voltage regulator	3.89	3.85

**Transistors**

Part No.	Cross Ref.	Pkg.	Description	1	10
261083EE	NTE47	TO-92	NPN high gain, low noise	\$.61	\$.59
261104EE	NTE48	TO-92	NPN darlington, high current	.95	.92
261112EE	NTE55	TO-220	PNP complimentary trans., high freq. driver	3.55	3.39
261139EE	NTE85	TO-92	NPN general purpose	.84	.79
260507EE	NTE100	TO-18	PNP germanium comp. trans. oscillator	3.15	3.09
260515EE	NTE102	TO-18	PNP germanium comp. trans. pwr output driver	3.69	2.49
260523EE	NTE108	TO-92	NPN high frequency amp.	1.34	1.29
260531EE	NTE123	TO-18	NPN general purpose audio amp., switch	.75	.73
260540EE	NTE123A	TO-18	NPN comp. transistor, general purpose	1.07	1.04
260558EE	NTE123AP	TO-92	NPN audio amplifier switch	.86	.79
260566EE	NTE128	TO-39	NPN comp. trans., audio output, video driver	1.19	1.15
260574EE	NTE128P	TO-237	NPN comp. transistor, general purpose	1.29	1.25
260582EE	NTE129	TO-237	PNP comp. transistor, general purpose	2.25	2.19
260591EE	NTE130	TO-3	NPN audio pwr amp., medium speed switch	2.75	2.52
260603EE	NTE154	TO-39	NPN high voltage video output	2.85	2.65
260611EE	NTE159	TO-92	PNP audio amplifier switch	.96	.91
260620EE	NTE172A	TO-92	NPN darlington pre-amp., med. sp. switch	.62	.61
260638EE	NTE175	TO-3	NPN comp. trans., hi volt. med. pwr switch	3.29	3.25
260646EE	NTE181	TO-3	NPN high power audio amplifier	6.59	6.29
260654EE	NTE184	TO-126	NPN comp. trans. audio pwr amp., switch	1.79	1.75
260662EE	NTE185	TO-126	PNP comp. trans. audio pwr amp., switch	1.89	1.85
260671EE	NTE196	TO-220	NPN comp. trans. audio pwr output&med. pwr switch	2.45	2.39
260689EE	NTE199	TO-92	NPN low noise, high gain amplifier	.67	.65
260777EE	NTE234	TO-92	PNP low noise, high gain amplifier	.89	.85
260822EE	NTE238	TO-3	NPN color TV horizontal output	5.55	5.49
260857EE	NTE247	TO-3	NPN comp. trans. darlington power amp.	5.29	4.99
260865EE	NTE253	TO-126	NPN comp. trans. darlington power amp.	1.55	1.49
260881EE	NTE261	TO-220	NPN comp. trans. darlington power amp.	2.29	2.22
260890EE	NTE262	TO-220	PNP comp. trans. darlington power amp.	2.55	2.49
260902EE	NTE263	TO-220	NPN comp. trans. darlington power amp.	2.55	2.39
260911EE	NTE264	TO-220	PNP comp. trans. darlington power amp.	2.89	2.85
260929EE	NTE265	TO-220	NPN darlington power amplifier	3.79	3.74
260937EE	NTE287	TO-92	NPN comp. trans. hi volt., general purpose	.87	.85
260945EE	NTE288	TO-92	PNP comp. trans. hi volt., general purpose	.80	.74
260953EE	NTE289A	TO-92	NPN comp. transistor audio power amp.	1.22	1.19
260961EE	NTE290A	TO-92	PNP comp. transistor audio power amp.	1.38	1.34
260970EE	NTE291	TO-220	NPN comp. trans. medium power amp., switch	2.15	2.09
260988EE	NTE311	TO-39	NPN frequency multiplier driver, VHF/UHF	2.79	2.75
260996EE	NTE316	TO-39	NPN high gain, low noise amp.	3.09	3.02
261008EE	NTE331	TO-220	NPN comp. trans. audio power amp., switch	2.89	2.74
261016EE	NTE332	TO-220	PNP comp. trans. audio power amp., switch	2.89	2.75
261024EE	NTE373	TO-126	NPN comp. transistor audio amp. driver	1.69	1.64
261032EE	NTE374	TO-126	PNP comp. transistor audio amp. driver	1.75	1.65
261041EE	NTE378	TO-220	PNP comp. trans. pwr amp. driver output switch	2.75	2.55
261059EE	NTE379	TO-220	NPN power amp. high voltage switch	7.15	7.09

**Transistors (Continued)**

Part No.	Cross Ref.	Pkg.	Description	1	10
261067EE	NTE397	TO-39	PNP power amp. & high speed switch	\$2.75	\$2.51
261075EE	NTE399	TO-92	NPN high voltage video amp.	2.75	2.64
261091EE	NTE473	TO-39	NPN RF power driver	5.19	5.15
260700EE	NTE2300	TO-3	NPN high voltage horizontal output	5.09	4.59
260718EE	NTE2311	TO-218	NPN high voltage high speed switch	14.25	13.45
260726EE	NTE2312	TO-220	NPN high voltage high speed switch	4.75	4.49
260734EE	NTE2322	DIP-14	PNP quad general purpose	2.85	2.57
260742EE	NTE2324	TO-220	NPN color TV horiz. deflection output	8.55	8.15
260751EE	NTE2329	TO-126	PNP comp. trans. audio power output	5.75	5.69
260769EE	NTE2331	TO-220	NPN color TV horiz. deflection output w/ damper diode	6.85	6.79
260785EE	NTE2343	TO-220	NPN comp. trans., darlington pwr amp., switch	2.09	1.95
260793EE	NTE2344	TO-220	NPN comp. trans., darlington pwr amp., switch	1.65	1.55
260806EE	NTE2349	TO-3	NPN darlington trans., hi curr. gen. purpose	15.65	15.39
260814EE	NTE2353	TO-220	NPN TV horiz. deflection output w/ damper diode	5.75	5.69
260831EE	NTE2408	SOT-23	NPN general purpose amp. (2/pk.)	1.25	1.19
260849EE	NTE2409	SOT-23	PNP general purpose amp. (2/pk.)	1.25	1.19
260873EE	NTE2543	TO-220	NPN darlington motor/relay driver	3.29	3.25
261121EE	NTE6410	TO-92	Unijunction transistor	4.79	4.75

**JFETs**

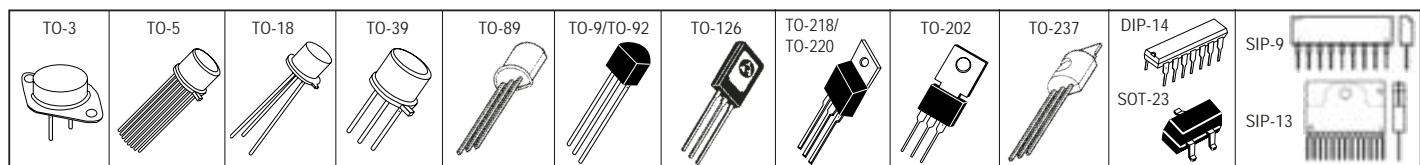
Part No.	Cross Ref.	Pkg.	Description	1	10
260427EE	NTE457	TO-92	N-ch JFET general purpose	\$1.04	\$.99
260435EE	NTE458	TO-92	N-ch JFET low noise, audio freq. amp.	1.69	1.65
260443EE	NTE222	TO-39	Dual gate N-channel MOSFET	\$10.55	\$9.59
260451EE	NTE2389	TO-220	N-ch enhancement mode hi speed switch	5.35	5.15
260460EE	NTE2394	TO-126	N-ch enhancement mode hi speed switch	11.25	11.19
260478EE	NTE2395	TO-220	N-ch enhancement mode high speed switch	5.59	5.39
260486EE	NTE2397	TO-220	N-ch enhancement mode high speed switch	5.59	5.39
260494EE	NTE2398	TO-220	N-ch enhancement mode high speed switch	3.75	3.69

**Diodes**

Part No.	Cross Ref.	Pkg.	Description	1	10
259418EE	NTE109	DO-7	Germanium fast switching	\$1.18	\$1.14
259426EE	NTE112	DO-35	Silicon small signal schottky	1.48	1.34
259434EE	NTE177	DO-35	Silicon general purpose	.30	.28
259442EE	NTE519	DO-7	Silicon ultra fast switch	.34	.31
259451EE	NTE570	DO-7	Silicon controlled avalanche diode	1.23	1.19
259469EE	NTE583	DO-7	Schottky RF switch	1.27	1.22
259477EE	NTE588	DO-7	Silicon 200V, 3A fast switch	1.25	1.21
259485EE	NTE618	Non-Std	Silicon tuning diode for AM radio, varactor	1.79	1.75
259512EE	NTE222	TO-39	NPN high voltage switch	1.25	1.21
259522EE	NTE142A	DO-35	12V 1W	2/pk.	.56
259531EE	NTE143A	DO-35	13V 1W	2/pk.	.44
259549EE	NTE145A	DO-35	15V 1W	2/pk.	.44
259557EE	NTE147A	DO-35	33V 1W	2/pk.	.44
259590EE	NTE5077A	DO-35	18V 1W	2/pk.	1.42
259602EE	NTE5105A	DO-35	200V 1W	2/pk.	1.85
259611EE	NTE5130A	DO-35	15V 5W	1/pk.	1.46
259629EE	NTE5141A	DO-35	30V 5W	1/pk.	2.05
259637EE	NTE5164A	DO-35	180V 5W	1/pk.	2.05



## NTE Replacement and Design Semiconductors

 NTE Replacement Semiconductors  
for Maintenance & Repair


## Rectifiers

Part No.	Cross Ref.	Pkg.	Description	PRV	AFC	1	10
259813EE	NTE116	DO-41	Rectifier	600V	1A	\$.49	\$.45
259821EE	NTE125	DO-41	Rectifier	1000V	2.5A	.50	.48
259830EE	NTE156	DO-41	Rectifier	1000V	3A	.67	.63
259645EE	NTE506	DO-41	Rectifier	1400V	2A	1.10	1.06
259848EE	NTE541	DO-35	Rectifier	8.4kV	50A	8.39	8.29
259856EE	NTE552	DO-41	Rectifier	600V	1A	.93	.90
259864EE	NTE558	DO-41	Rectifier	1500V	1A	1.69	1.63
259872EE	NTE569	DO-41	Rectifier	600V	3A	1.12	1.03
259881EE	NTE574	DO-41	Rectifier	400V	1A	.58	.53
259899EE	NTE576	DO-41	Rectifier	400V	5A	1.85	1.79
259901EE	NTE577	DO-41	Rectifier	1000V	5A	3.59	3.45
259910EE	NTE580	SOD57	Rectifier	600V	3A	2.75	2.59
260021EE	NTE598	TO-220/2	Rectifier	600V	8A	2.15	2.11
259928EE	NTE5800	DO-41	Rectifier	50V	3A	.33	.31
259936EE	NTE5801	DO-41	Rectifier	100V	3A	.48	.45
259944EE	NTE5804	DO-41	Rectifier	400V	3A	.60	.56
259952EE	NTE5806	DO-41	Rectifier	600V	3A	.94	.92
259961EE	NTE5809	DO-41	Rectifier	1000V	3A	1.39	1.31
259979EE	NTE5812	T6L	Rectifier	100V	6A	.91	.87
259987EE	NTE5814	T6L	Rectifier	400V	6A	2.59	1.45
259995EE	NTE5815	T6L	Rectifier	600V	6A	2.49	2.27
260005EE	NTE5817	T6L	Rectifier	1000V	6A	2.29	2.14
260013EE	NTE5870	DO-4	Rectifier	50V	12A	2.59	2.49
260030EE	NTE6013	TO-220	Rectifier	600V	12.7A isolated	3.75	3.69
260048EE	NTE6240	TO-220	Rectifier	200V	16A	3.95	3.77
259653EE	NTE166	BR8D	Bridge rectifier	100V	2A	1.10	1.06
259661EE	NTE167	BR8D	Bridge rectifier	200V	2A	1.75	1.69
259670EE	NTE168	BR8D	Bridge rectifier	400V	2A	1.95	1.86
259688EE	NTE170	BR8D	Bridge rectifier	1000V	2A	2.85	2.79
259696EE	NTE5304	WOM	Bridge rectifier	400V	1.5A	1.32	1.28
259709EE	NTE5305	WOM	Bridge rectifier	600V	1.5A	1.47	1.42
259717EE	NTE5312	GBPC	Bridge rectifier	100V	8A	3.89	3.70
259725EE	NTE5313	GBPC	Bridge rectifier	200V	8A	3.79	3.65
259733EE	NTE5314	GBPC	Bridge rectifier	400V	8A	3.95	3.74
259741EE	NTE5322	TB35	Bridge rectifier	200V	25A	5.65	5.38
259750EE	NTE5326	TB35	Bridge rectifier	600V	25A	7.59	7.20
259768EE	NTE5329	BR8D	Bridge rectifier	200V	6A	3.65	3.46
259776EE	NTE5332	DIP-4	Bridge rectifier	600V	1A	1.49	1.45
259784EE	NTE5340	Non-Std	Bridge rectifier	200V	40A	8.99	8.57
259792EE	NTE5342	Non-Std	Bridge rectifier	600V	40A	11.39	10.79
259805EE	NTE5344	Non-Std	Bridge rectifier	1000V	40A	12.79	12.29

## Silicon Controlled Rectifiers (SCR)

Part No.	Cross Ref.	Pkg.	Description	1	10
260056EE	NTE5401	TO-92	60 VRM 0.8A	\$.97	\$.91
260064EE	NTE5402	TO-92	100 VRM 0.8A	.97	.89
260072EE	NTE5404	TO-92	200 VRM 0.8A	1.33	1.29
260081EE	NTE5457	TO-202	400 VRM 4A	1.33	1.29
260099EE	NTE5458	TO-202	600 PRV 4A	2.05	1.99

## Diacs/Triacs/Sidacs/TVS

Part No.	Cross Ref.	Pkg.	Description	1	10
261278EE	NTE4900	DO-35	TVS, 5.0V	\$2.19	\$2.15
260110EE	NTE6404	TO-89	SUS, SI, 1.0A	8.85	8.79
259400EE	NTE6408	DO-35	Diac	.94	.90
260101EE	NTE6419	Non-Std	Sidac, 110-125V	2.05	1.99
261147EE	NTE5629	TO-202	Triac, 400 VRM, 4A	1.99	1.89
261155EE	NTE5656	TO-9	Triac, 400 VRM, 0.8A	1.08	1.05

## Varistors (MOV)

Part No.	Cross Ref.	Pkg.	Description	1	10
261286EE	NTE1V020	8.5mm	20VRMS, 20VDC, 1.5 joules	\$1.03	\$.99
261294EE	NTE1V130	8.5mm	135VRMS, 180VDC, 10 joules	1.08	1.03
261307EE	NTE2V130	16mm	135VRMS, 180VDC, 39 joules	1.85	1.79
261315EE	NTE2V250	16mm	240VRMS, 320VDC, 70 joules	2.65	2.54
261323EE	NTE524V25	23mm	240VRMS, 320VDC, 129 joules	2.39	2.35

## Thermal Fuses

Part No.	Cross Ref.	Description	Dimensions	1	10
261163EE	NTE8076	TCO 77°C, 171°F	3.2" L x 1.6" Dia.	\$1.13	\$1.09
261171EE	NTE8085	TCO 87°C, 189°F	3.2" L x 1.6" Dia.	1.27	1.23
261180EE	NTE8090	TCO 93°C, 200°F	3.2" L x 1.6" Dia.	1.13	1.09
261198EE	NTE8096	TCO 98°C, 208°F	3.2" L x 1.6" Dia.	1.13	1.09
261201EE	NTE8098	TCO 100°C, 212°F	3.2" L x 1.6" Dia.	1.13	1.09
261219EE	NTE8103	TCO 104°C, 220°F	3.2" L x 1.6" Dia.	1.13	1.09
261227EE	NTE8118	TCO 121°C, 250°F	3.2" L x 1.6" Dia.	1.13	1.09
261235EE	NTE8139	TCO 141°C, 286°F	3.2" L x 1.6" Dia.	1.27	1.23
261243EE	NTE8181	TCO 184°C, 364°F	3.2" L x 1.6" Dia.	1.13	1.09
261251EE	NTE8213	TCO 216°C, 421°F	3.2" L x 1.6" Dia.	1.13	1.09
261260EE	NTE8242	TCO 240°C, 464°F	3.2" L x 1.6" Dia.	1.13	1.09

## LEDs

Part No.	Cross Ref.	Pkg.	Description	1	10
260363EE	NTE1866	SIP-9	5-point LED VU scale bar level meter driver	\$2.05	\$1.96
260371EE	NTE3024*	T1 1/4	Green 5mm, 2.1V@20mA, 8.7mcd@10mA, 565nm	1.31	1.24

\* 2 ea. per pack

## Optoisolators

Part No.	Cross Ref.	Pkg.	Description	1	10
260380EE	NTE3040	DIP-6	NPN transistor output, 1.5V @ 10mA	\$1.75	\$1.68
260398EE	NTE3041	DIP-6	NPN transistor output, 1.15V @ 10mA	1.75	1.69
260401EE	NTE3044	DIP-6	NPN darl. trans. output, 1.15V @ 10mA	2.35	2.25
260419EE	NTE3047	DIP-6	Triac driver output, 1.15V @ 10mA	2.45	2.04

## NTE Hardware

Part No.	Cross Ref.	Description	1	10
259151EE	NTE303	1 gram tube of heat sink compound (5/pk.)	\$1.65	\$1.55
259194EE	TP0001	TO-3 Thermo pad (5/pk.)	1.39	1.29
259282EE	TP0002	TO-66 Thermo pad (5/pk.)	1.15	1.12
259207EE	TP0003	DO-5 Thermo pad (5/pk.)	.82	.78
259215EE	TP0004	TO-126 Thermo pad (5/pk.)	.69	.65
259223EE	TP0005	TO-218 Thermo pad (5/pk.)	1.36	1.33
259231EE	TP0006	TO-220 Thermo pad (5/pk.)	1.01	.95
259240EE	TP0007	DO-5 Thermo pad (5/pk.)	1.03	.98
259258EE	TP0008	TO-3 Thermo pad (5/pk.)	1.15	1.12
259266EE	TP0009	TO-36 Thermo pad (5/pk.)	1.38	1.35
259274EE	TP0010	TO-3PML Thermo pad (5/pk.)	2.39	2.20
259178EE	NTE416	DIP-16 16-pin DIP socket	2.09	1.85
259186EE	NTE423	DIP-8 8-pin DIP socket	1.10	1.06
259160EE	NTE422	TO-220 Insulator kit	1.01	.97

Think NTE for high-quality, broad-tolerance components!

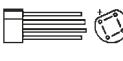
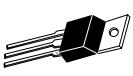
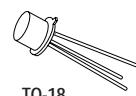
Whatever your application, check out our top-tier selection of logic and linear ICs, voltage regulators, varistors, LEDs, IC sockets, transistors, diodes and other popular parts.

Need larger quantity discounts or other products? Visit [www.Jameco.com](http://www.Jameco.com) today!

National Semiconductor

TEXAS INSTRUMENTS

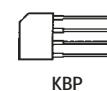
VISHAY



WOG

4-Pin  
DIP

TO-3



KBP



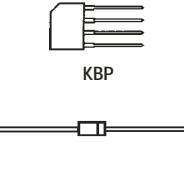
179-01



TO-225AA



TO-220/AB



DO-27A/DO-41/DO-35

**Transistors**

Expanded Selection

\* Prepackaged: order in increments of 10

Part No.	Product No.	Mfr.	Package	Desc.	Vceo	Min. $h_{FE} @ I_c$	Pricing	
							1	10
297799EE	MPSA05	◆	TO-92	NPN	60	100 @ .01A	*	\$0.075
32977EE	TIP102 NEW	◆	TO-220	NPN	100	1k @ 3A	.57	.49
33048EE	TIP31A	◆	TO-220	NPN	60	10 @ 3A	.49	.39
33064EE	TIP32A	◆	TO-220	PNP	60	10 @ 3A	\$.039	.36
179240EE	TIP102	FSC	TO-220	NPN	100	1k @ 3A	\$.053	.37
32993EE	TIP120	◆	TO-220	NPN	60	1k @ 3A	.49	.45
179291EE	TIP120	FSC	TO-220	NPN	60	1k @ 3A	.59	.51
120416EE	TIP122	◆	TO-220	NPN	100	1k @ 3A	.42	.37
33013EE	TIP125 NEW	◆	TO-220	PNP	60	1k @ 3A	.49	.45
38228EE	2N2219A	◆	TO-39	NPN	40	100 @ 15A	.41	.37
28628EE	PN2222	◆	TO-92	NPN	30	100 @ 15A	*	.065
38236EE	2N2222A	◆	TO-18	NPN	40	100 @ .15A	.39	.35
28644EE	PN2907	◆	TO-92	PNP	40	100 @ .15A	*	.125
38279EE	2N2907A	◆	TO-18	PNP	60	100 @ .15A	.36	.34
25831EE	MJE2955T	◆	TO-220	PNP	60	20 @ 4A	.51	.44
38295EE	2N3053	◆	TO-39	NPN	40	25 @ .15A	.47	.43
38308EE	2N3055	◆	TO-3	NPN	60	15 @ 10A	.95	.85
25857EE	MJE3055T	◆	TO-220	NPN	60	20 @ 4A	.51	.44
209242EE	2N3771	◆	TO-3	NPN	40	15 @ 15A	1.89	1.75
38359EE	2N3904	◆	TO-92	NPN	40	100 @ .01A	*	.069
178597EE	2N3904	FSC	TO-92	NPN	40	100 @ .01A	*	.09
178618EE	2N3906	FSC	TO-92	PNP	40	100 @ .01A	*	.085
38421EE	2N4401	◆	TO-92	NPN	40	100 @ .15A	*	.08
38447EE	2N4403	◆	TO-92	PNP	40	100 @ .15A	*	.07
194600EE	2N6059	◆	TO-3	NPN	100	750 @ 6A	1.59	1.55

◆ Manufacturer varies FSC = Fairchild Semiconductor

**Small-Signal High-Voltage**

Prepackaged: order in increments of 10

Part No.	Product No.	Package	Desc.	Vceo	Min. $h_{FE} @ I_c$ (mA)	10	100
178546EE	MPSA42	TO-92	NPN	300	40 @ 10	\$.081	\$.073

**Small-Signal General-Purpose**

Prepackaged: order in increments of 10

Part No.	Product No.	Package	Desc.	Vceo	Min. $h_{FE} @ I_c$ (mA)	10	100
178511EE	PN2222A	TO-92	NPN	40	100 @ 150	\$.12	\$.08
178520EE	PN2907A	TO-92	PNP	60	100 @ 150	.058	.042
38375EE	2N3906	TO-92	PNP	40	100 @ 10	.05	.04

**N-Channel MOSFETs**

\* Prepackaged: order in increments of 10

Part No.	Prod. No.	Mfr.	Package	Drain Source Brkdwln Volt.	Min. On-State DS Current	Pricing	
						1	10
209058EE	BUZ72L	◆	TO-220	100VDC	10.0A	\$.77	\$.55
209234EE	IRF510	◆	TO-220	100VDC	5.6A	.69	.59
209226EE	IRF520	◆	TO-220	100VDC	10.0A	.55	.48
210500EE	IRF530	◆	TO-220	100VDC	14.0A	.66	.57
210518EE	IRF540	◆	TO-220	100VDC	27.0A	1.05	.95
210542EE	IRF640	◆	TO-220	200VDC	18.0A	.69	.65
210569EE	IRF740	◆	TO-220	400VDC	10.0A	1.25	1.10
210585EE	IRF830	◆	TO-220	500VDC	4.5A	.77	.70
184719EE	IRF840	◆	TO-220	500VDC	8.0A	1.49	1.29
178669EE	2N7000	FSC	TO-92	60VDC	0.2A	.23	.19
119423EE	2N7000	◆	TO-92	60VDC	0.3A	*	.11

◆ Manufacturer varies FSC = Fairchild Semiconductor

**Rectifiers**

Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Mfr.	Package	Description	10	100
35975EE	1N4001	◆	DO-41	50 PRV, 1A	\$.035	\$.025
76961EE	1N4002	◆	DO-41	100 PRV, 1A	.039	.025
76970EE	1N4003	◆	DO-41	200 PRV, 1A	.035	.025
36011EE	1N4007	◆	DO-41	1000 PRV, 1A	.038	.029
36265EE	1N5404	◆	DO-27A	400 PRV, 3A	.10	.09
36273EE	1N5408	◆	DO-27A	1000 PRV, 3A	.15	.11
35991EE	1N4004	◆	DO-41	400 PRV, 1A	.04	.025
177949EE	1N5817	◆	DO-204AL	20 PIV, 1A	.11	.09
177818EE	T6A100L	◆	T6L	1000 PIV, 6A	.65	.59

◆ Manufacturer varies

**Switching Diodes**

Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Mfr.	Package	Description	10	100
35941EE	1N270 NEW	◆	DO-7	80 PRV (Germanium)	\$.75	\$.69
179207EE	1N914	VSH	DO-35	100 PRV (Switching)	.05	.025
35967EE	1N3600	◆	DO-35	50 PRV @ 100µa, 200mA	.045	.029
179215EE	1N4148	VSH	DO-35	100 PRV (Switching)	.04	.03
36038EE	1N4148	◆	DO-35	75 PRV @ 50µa, 10mA	.036	.027

◆ Manufacturer varies VSH = Vishay

**Zener Diodes**

Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Mfr.	Package	Description	1	10
178781EE	1N4733A	VSH	DO-41	5.1V @ 49mA 1W	\$.09	\$.06
36097EE	1N4733A	◆	DO-41	5.1V @ 49mA 1W	.08	.065
36118EE	1N4734A	◆	DO-41	5.6V @ 45mA 1W	.064	.05
36126EE	1N4735A	VSH	DO-41	6.2V @ 41mA 1W	.061	.049
36169EE	1N4742A	VSH	DO-41	12.0V @ 21mA 1W	.07	.055

◆ Manufacturer varies

**Silicon Controlled Rectifiers**

Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Mfr.	Package	Description	10	100
14859EE	C38M — NEW	◆	TO-65	600 PRV, 35A (2N3899)	\$6.89	\$6.19
119802EE	2N5060	◆	TO-92	25 PRV, 0.8A	.19	.15
14761EE	C122M	◆	TO-220	600 PRV, 8A (isolated)	1.35	1.25

◆ Manufacturer varies

**Triacs**

Part No.	Product No.	Mfr.	Package	Description	1	10
140425EE	2N6071A	◆	TO-225AA	200 V <sub>DRM</sub> , 4A	\$.29	\$.27
31827EE	SC146M	◆	TO-220	Triac, 600 V <sub>DRM</sub> , 10A (2N6344)	1.99	1.69

◆ Manufacturer varies

**Black Magic Telephone Ring Generator**

Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents.

- Nominal output voltage: 86 Vrms
- No reverse polarity protection

Part No.	Product No.	Frequency	Series Resistor	1	10
145816EE	LBMR12	20Hz	300Ω	\$26.95	\$24.49



## Heat Sinks

Our TO-3/TO-220 heat sinks are made from black anodized aluminum (except for P/N 107297EE which is light weight aluminum). They can be mounted horizontally or vertically depending on your applications.

Thermalloy IERC  
AAVID Wakefield

More on our website  
www.Jameco.com



16512EE



189835EE



107297EE

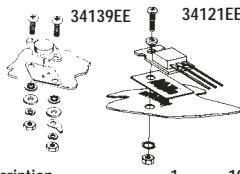


158051EE

## Heat Sink Mounting Kits

- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

Part No.	Type	Description	1	10
34139EE	TO-3	12-piece kit	\$3.95	\$3.59
34121EE	TO-220	5-piece kit	3.95	3.55


34139EE  
34121EE

## Heat Sink Compound

Improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink.

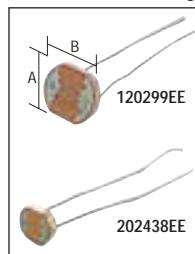
- Opaq. white



Part No.	Product No.	Weight	Price
167249EE	THM250	2 oz.	\$9.95

**CdS Photocells** • Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers • Soldering: 230°C for 3 seconds • Cadmium Sulfide (CdS) • Operating temperature: -30°C to +70°C

• Generate variable signal based on detection of light levels



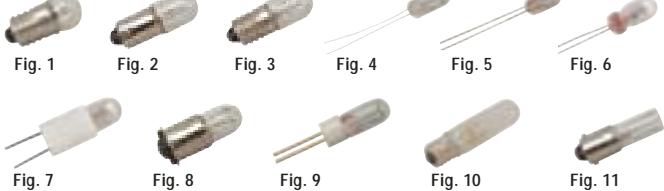
Part No.	Mfr. Cross Ref. No.	Rating		Resistance (Ω)		Size (inches)		Lead Spacing (inches)	Lead Length (inches)	Pricing	
		Vp	mW	Dark	Light	A	B			1	10
136055EE	CDST08	50	200	100k	10k	0.40	0.44	0.30	1.50	\$8.89	\$7.79
120310EE	CDS0029004	150	90	2M	27k	0.14	0.17	0.10	1.02	1.45	1.20
202391EE	CDS0029203	150	90	10M	5k	0.14	0.17	0.10	1.02	1.49	1.35
202403EE	CDS0018001	150	100	200k	3k	0.17	0.20	0.13	1.02	1.49	1.35
202438EE	CDS0037004	200	150	500k	15k	0.25	0.29	0.20	1.02	1.49	1.29
120301EE	CDS0037001	200	150	300k	3k	0.25	0.29	0.20	1.02	1.79	1.59
120299EE	CDS0045001	350	400	300k	8k	0.37	0.43	0.30	1.44	1.79	1.59
202454EE	CDS0045003	350	400	1M	12k	0.37	0.43	0.30	1.44	1.69	1.55

## Lamps

### Incandescent Lamps

\* Prepackaged: order in increments of 5

Mfr. Cross Ref. No.	Volts	Fig.	Description	Voltage	Current (A)	MSCP	Pricing	
							1	5
209390EE	14	1	G3 1/2 miniature screw	2.47	.30	.50	\$5.55	\$5.52
209437EE	47	2	T3 1/4 miniature bayonet	6.3	.15	.50	*	.22
209883EE	1821	3	T3 1/4 screw	28.0	.17	3.4	.99	.89
141073EE	2182	4	T1 3/4 wire terminal	14.0	.08	.30	.49	.44
141065EE	2200	4	T1 3/4 wire terminal	5.0	.06	.05	.59	.54
141057EE	6833	5	T 3/4 wire terminal	5.0	.06	.05	1.29	1.15
209998EE	7219	6	T1 wire terminal	12.0	.06	.15	*	.29
210008EE	7328	7	T1 3/4 bi-pin	6.0	.20	.60	.89	.79
210024EE	7341	8	T1 3/4 midget flange	28.0	.065	.65	.79	.69
141006EE	7361	7	T1 3/4 bi-pin	5.0	.06	.05	.99	.89
210032EE	7382	7	T1 3/4 bi-pin	14.0	.08	.30	.49	.39
210075EE	7715	9	T1 bi-pin	5.0	.115	.15	1.19	.99
309681EE	20T61/2	10	T6 1/2 20W intermediate	145	—	—	1.69	1.59
210091EE	120MB	11	T2 miniature bayonet	120	.025	1200	.69	.65



### LED Mounting Hardware

\* Prepackaged: order in increments of 10 or 100



Part No.	Mfr. Cross Ref. No.	Description	Mounting Hole Dia.	Panel Thickness	Pricing	
					10	100
95513EE	LMH100	T1 snap-in	.185"	Up to .070"	\$0.08	\$0.07
23077EE	LMH200	T1 1/4" ring & clip	.257"	Up to .125"	.15	.135

### Neon Lamps

\* Prepackaged: order in increments of 5 or 10

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Voltage	Current (mA)	Pricing		
						1	5	10
27351EE	A1A (NE-2)	1	Wire terminal	65-120	0.5	*	\$3.35	\$3.31
210243EE	A1B	1	Wire terminal	65-120	0.3	*	.28	.25
210251EE	A1C	1	Wire terminal	65-120	1.2	*	.39	.29
210260EE	A9A (NE-2E)	1	Wire terminal	65-120	0.7	*	.29	.25
210278EE	B1A (NE-51)	2	T3 1/4 miniature bayonet	65-120	0.3	.79	.75	.69
210286EE	B2A (NE-51H)	2	T3 1/4 miniature bayonet	65-120	1.2	.69	.59	.49



### Neon Panel Mount Lamps

• Output voltage: \*12V; †120V • Mounting hole diameter: 5/8" (16mm)

215802EE



• Solder terminals: 0.196" (5mm)

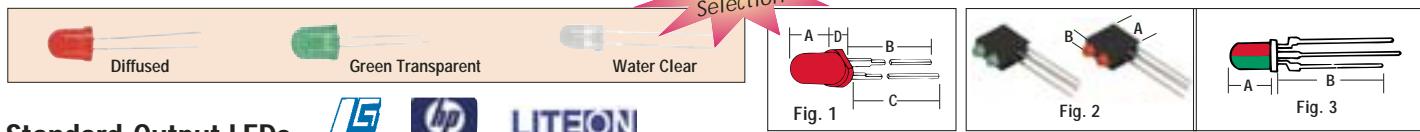
Part No.	Mfr. Cross Ref. No.	Color	1	10	Part No.	Mfr. Cross Ref. No.	Color	1	10
215714EE	R9-71B-05-12V-R*	Red	\$1.79	\$1.59	215802EE	R9-71N-05-120V-R†	Red	\$1.79	\$1.59
215722EE	R9-71B-05-12V-Y*	Yellow	1.79	1.59	215811EE	R9-71N-05-120V-Y†	Yellow	1.79	1.59
215731EE	R9-71B-05-12V-G*	Green	1.79	1.59	215829EE	R9-71N-05-120V-G†	Green	1.79	1.59

COLOR CODE LEGEND...

**NEW SALE** REFURBISHED CLOSEOUT

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**



## Standard-Output LEDs



LITEON

Expanded Selection

\* Prepackaged: order in increments of 10

Part No.	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing	
							A"	B"					1	10
206480EE	LVY2041 — NEW	1	Yellow	Yellow transparent	T1	.119/3	0.17	0.69	0.08	2.3 @ 20	450 @ 20	595	*	\$.14
34657EE	LY2040	1	Yellow	Yellow diffused (XC209Y)	T1	.119/3	0.16	0.68	0.08	2.3 @ 20	15 @ 10	585	*	.13
206498EE	LHR2041 — NEW	1	Red	Red transparent	T1	.119/3	0.17	0.69	0.08	2.0 @ 20	350 @ 20	660	*	.15
114673EE	LH2043*	1	Red	Water clear (BR209)	T1	.119/3	0.14	0.98	0.07	2.3 @ 20	12 @ 10	697	*	.19
94529EE	LH2040	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	0.07	2.3 @ 20	4.5 @ 10	697	*	.19
175679EE	LVG2041	1	Green	Green transparent	T1	.119/3	0.17	0.69	0.08	2.2 @ 20	129 @ 20	565	*	.15
114681EE	LVG2043* — NEW	1	Green	Water clear (BG209)	T1	.119/3	0.14	0.98	0.07	2.2 @ 20	129 @ 20	565	*	.09
34606EE	LSG2040	1	Green	Green diffused (XC209G)	T1	.119/3	0.13	1.05	0.08	2.2 @ 20	15 @ 10	560	*	.15
94553EE	LHG2062 — NEW	1	Red/Green	White diffused bi-color/bi-state <sup>1</sup>	T1	.119/3	0.18	1.06	0.08	2.3 @ 20	3 & 15 @ 10	697/565	.29	.25
137411EE	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	0.10	4.8 @ 20	10 @ 20	430	2.49	2.25
206501EE	LVY3331 — NEW	1	Yellow	Yellow transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.2 @ 20	700 @ 20	595	*	.19
34825EE	LY3330	1	Yellow	Yellow diffused (XC556Y)	T1 3/4	.197/5	0.30	0.82	0.07	2.3 @ 20	12 @ 10	585	*	.19
206519EE	LHR3331 — NEW	1	Red	Red transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.0 @ 20	660 @ 20	550	*	.19
94511EE	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.08	2.3 @ 20	3 @ 10	697	*	.17
134332EE	LT18B3-81UR	1	Blue	Water clear	T1 3/4	.197/5	0.30	0.93	0.10	3.8 @ 20	350 @ 20	428	2.65	2.45
137613EE	LSB13333 — NEW	1	Blue	Water clear	T1 3/4	.197/5	0.34	0.98	0.08	3.8 @ 20	160 @ 20	430	2.29	2.04
138691EE	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	0.08	4.8 @ 20	10 @ 20	430	2.15	2.04
153154EE	LVG3333 — NEW	1	Green	Water clear (HLMP-8509)	T1 3/4	.197/5	0.36	0.90	0.10	2.3 @ 20	500 @ 20	565	*	.14
34761EE	LG3330*	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.09	2.3 @ 20	12 @ 10	565	*	.15
34711EE	LEG3362*	1	Red/Green	White diffused bi-color/bi-state <sup>1</sup>	T1 3/4	.197/5	0.30	1.01	0.09	2.3 @ 20	7.5 & 8 @ 20	635/565	.33	.28
119634EE	LHR3930 — NEW	1	Red	Red diffused Jumbo (LT9952L)	T2 1/2	.315/8	0.44	0.84	0.07	2.0 @ 20	100 @ 20	660	.23	.20
11797EE	QLMP-D141	1	Red	Water clear (BR5704)	T1 3/4	.197/5	0.29	1.05	0.07	2.0 @ 20	350 @ 20	660	*	.19
136274EE	LA44B/2G	2	Green	Green diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	15 @ 10	565	.49	.45
34673EE	LHG3392*	3	Red/Green	White diff. bi-color/tri-state	T1 3/4	.197/5	0.30	1.02	0.03	2.3 @ 20	3 & 12 @ 10	697/565	.24	.22

\* 10 pcs. in LEDs & LED Mounting Hardware cabinet kit P/N 84996EE, see [www.Jameco.com](http://www.Jameco.com) for details

1 Reverse polarity to change color

## LEDTECH LEDs

- Typical DC forward current 20mA

Ledtech is a QS9000 &amp; ISO-9000 Certified Company

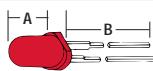


Fig. 1

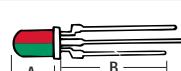


Fig. 2



151415EE

\* Prepackaged: order in increments of 10

Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter (in./mm)	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing	
							A"	B"					1	10
156953EE	LT0373-41	1	Red Super Bright	Water clear	T1	.119/3	0.21	1.07	0.08	1.7 @ 20	600 @ 20	660	\$.24	\$.22
156945EE	LT0362-25-D61	2	Red/Green	White diff. bi-color tri-state	T1	.119/3	0.16	0.87	0.08	2.1 @ 20	2.7/13.3 @ 20	700/567	.29	.25
152750EE	LT0344R-41	1	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	52.9 @ 10	635	*	.19
152784EE	LT0341R-41	1	Orange Red	Red diffused	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	15.5 @ 10	635	*	.17
152768EE	LT0324-41	1	Green	Green clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	45 @ 20	567	*	.12
156929EE	LT0321-41-HE	1	Green	Green diffused	T1	.118/3	0.16	0.88	0.10	2.1 @ 20	32 @ 20	567	*	.18
156937EE	LT0331-41	1	Yellow	Yellow diffused	T1	.118/3	0.16	0.88	0.10	1.7 @ 20	1.8 @ 20	655	*	.14
215597EE	LT2K33-81-UC9T	1	Yellow	Water clear	T1 3/4	.197/5	0.31	0.89	0.10	2.2 @ 20	5000 @ 20	592	.59	.55
261622EE	LT1873-81-UR-P22	1	Red	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	1200 @ 20	660	.21	.20
242843EE	LT1811-81	1	Red	Red diffused	T1 3/4	.197/5	0.30	0.88	0.10	2.1 @ 20	4.1 @ 20	700	*	.12
152805EE	LT1873-81-UR	1	Red Ultra Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	2000 @ 20	660	.29	.25
153138EE	LT2KJ3-UR-S14	1	Orange	Water clear	T1 3/4	.197/5	0.36	0.90	0.10	2.1 @ 20	2500 @ 20	621	.49	.44
152856EE	LT1841R-81	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	23 @ 20	635	*	.17
156961EE	LT1823-81-HE	1	Green	Water clear	T1 3/4	.197/5	0.34	0.87	0.10	2.1 @ 20	500 @ 20	567	*	.17
152821EE	LT1821-81-HE	1	Green	Green diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	96 @ 20	567	*	.16
175687EE	LT0524-81	1	Green	Green transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.1 @ 20	44 @ 20	567	*	.16
152792EE	LT1833-81-M1	1	Ylw Super Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	1040 @ 20	593	.26	.24
152830EE	LT1831-81-UR	1	Ylw Ultra Bright	Yellow diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.0 @ 20	424 @ 20	593	.26	.24

## Diffused Backlight

151415EE LT1F24-A2-S1 - Green Backlight, diffused 2.05" L x 0.78" H x 0.09" T 8-pin 4.2 @ 20 140 @ 20 567 \$2.95 \$2.65

## Infrared and Visible Light Emitters

- Use for remote control and/or for fiber optics
- P/N 133946EE: Can be used w/ cameras, see pg 91 (peak emission wavelength: 940nm @ If 20mA)

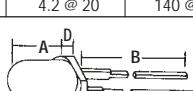


Fig. 1

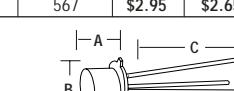


Fig. 2

120221EE

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Size	Diameter inch/mm	Dimensions				Typical Vf @ If	Wavelength nm	Output mWatts	Pricing	
						A	B	C	D				1	10
112150EE	LIR2043	1	Infrared emitter diode (GaAs)	T1	0.125/3	0.18	0.95	0.98	0.03	1.2V @ 20mA	940	5	\$.22	\$.18
133946EE	SLI-0308CP	1	Infrared emitter diode (GaAs)	T1	0.12/3	0.22	0.98	1.00	0.03	1.7V @ 50mA	940	200	.62	.53
112176EE	LPT2023	1	Infrared phototransistor	T1	0.12/3	0.18	0.95	0.98	0.03	—	940	—	.39	.29
106526EE	TLN110	1	Infrared emitter diode (GaAs)	T1 3/4	0.200/5	0.34	0.78	0.84	0.04	1.2V @ 20mA	940	9	.39	.29
112168EE	LPT3313 — NEW	1	Infrared phototransistor	T1 3/4	0.200/5	0.31	1.05	1.10	0.04	—	940	—	.36	.30
120221EE	BPW77NA — NEW	2	Visible light phototransistor	TO-18	—	0.24	0.19	0.52	—	—	850	—	1.59	1.55

## High-Output LEDs

See page 15 for LED Mounting Hardware

- Typical DC forward current 20mA



Fig. 1

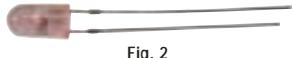


Fig. 2

Part No.	Mfr. Cross Reference No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions A" B"	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	Pricing 10
217525EE	MCDP-3004C	1	White	Water clear	T1	.119/3	0.18 1.00	0.10	3.8 @ 20	3000 @ 20	—	\$2.99	\$2.85
142893EE	CLP1509	1	White	Water clear	T1 3/4	.197/5	0.34 0.79	0.08	3.6 @ 20	3700 @ 20	—	3.95	3.59
183231EE	T18W133196	1	White	Water clear	T1 3/4	.197/5	0.30 1.06	0.08	3.6 @ 20	3000 @ 20	—	2.95	2.65
183222EE	MCDL513SBC4	1	Blue	Water clear	T1 3/4	.197/5	0.29 1.02	0.08	5.0 @ 20	3000 @ 20	470	3.25	2.95
183214EE	MCDPG503PCI	1	Green	Water clear	T1 3/4	.197/5	0.30 1.04	0.08	3.5 @ 20	2200 @ 20	515	2.95	2.65
131895EE	TLSH180P	1	Orange	Water clear	T1 3/4	.197/5	0.39 0.80	0.10	2.1 @ 20	7000 @ 20	623	2.49	2.19
197683EE	BVT5E10T4ER	1	Orange Red	Water clear	T1 3/4	.197/5	0.29 1.08	0.08	2.3 @ 20	4650 @ 20	634	.69	.59
152864EE	LT1873-81	1	Super Brt.	Water clear	T1 3/4	.197/5	0.34 0.89	0.10	1.7 @ 20	1000 @ 20	660	.29	.24
197616EE	BVUE1TQH4E	1	Red	Water clear	T1 3/4	.197/5	0.30 1.05	0.08	1.8 @ 20	2180 @ 20	630	.39	.35
215597EE	LT2K23-81-UC9T	1	Yellow	Water clear	T1 3/4	.197/5	0.31 0.89	0.10	2.2 @ 20	5000 @ 20	590	.59	.55
197675EE	BVT5E1TT4E	1	Yellow	Water clear	T1 3/4	.197/5	0.30 1.08	0.08	2.3 @ 20	2800 @ 20	592	.45	.36
197641EE	BVT529T13E	2	Yellow	Yellow transparent	Oval	.170/.220	0.29 1.04	0.08	2.3 @ 20	7800 @ 20	590	.69	.62

## LED Displays

The general advantages of LED displays compared to incandescent types include:

- Lower power consumption
- Longer lifetime (averaged more than 300,000 hours)
- Compact size suitable for instrumentation and graphic representations

### Soldering:

- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W



7-Segment Displays

Part No.	Mfr. Cross Reference No.	Character Height	Illuminated Color	Buss Polarity*	Pins/Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing	
										1	10
24731EE	LSD3021-11	.300"	Red	CA	11	1.9 @ 20	0.3 @ 20	697	RHDP	\$ .87	\$ .70
308187EE	LC3041R-RRRN	.300"	Red	CC	10	2.1 @ 20	3.3 @ 10	635	LHDP/RHDP	.73	.64
151976EE	LTS312AY	.300"	Yellow	CA	11	2.8 @ 20	2.0 @ 10	585	LHDP	.89	.71
308179EE	LC3951-11EWAK	.390"	Red	CC	10	2.1 @ 20	0.6 @ 10	700	RHDP	.79	.73
172086EE	LSD5061-11	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75
104213EE	LSD5124-10	.560"	Orange Red	CA	10	2.0 @ 20	2.4 @ 20	635	RHDP	.89	.80
308224EE	LM5643R-11RRRN	.560"	Orange	3-digit CC	11	2.1 @ 20	3.3 @ 10	635	RHDP	2.25	2.05
308232EE	LM5644R-11RRRN	.560"	Orange	4-digit CC	12	2.1 @ 20	3.3 @ 10	635	RHDP	2.75	2.45
24723EE	LDD5111-11	.560"	Red	2-digit CC	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05
24707EE	LDD5114-20	.560"	Orange Red	2-digit CC	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.35	1.15
308216EE	LA5622-11EWRN	.560"	Green	2-digit CA	18	2.1 @ 20	2.9 @ 10	567	RHDP	.87	.65
225963EE	KW3-562A2B	.560"	Green	3-digit CA	28	2.2 @ 20	15 @ 20	568	RHDP	2.39	2.15
199582EE	LC56311	.560"	Yellow	CC	8	2.1 @ 20	5.2 @ 20	589	RHDP	1.49	1.25
18737EE	LSD816-11	.800"	Orange Red	CA	13	1.6 @ 20	0.9 @ 20	655	RHDP	1.49	1.35
18753EE	LSD8151-10	.800"	Red	CC	13	2.1 @ 20	1.0 @ 20	697	RHDP	1.49	1.35
308259EE	LA8071-11-MIEWRW	.800"	Red	CA	13	1.7 @ 20	8.9 @ 10	660	LHDP/RHDP	1.39	1.25
206017EE	SC08-11HWA	.800"	Red	CC	13	2.0 @ 20	.36 @ 10	700	RHDP	1.49	1.35
176559EE	C8021-1	.800"	Green	CC	13	2.0 @ 20	0.9 @ 20	568	RHDP	.49	.44
308161EE	LA2541-24EWRN	1.0"	Orange	CA	10	4.2 @ 20	5.2 @ 10	635	RHDP	2.89	2.65
97172EE	LSD10061-10	1.0"	Red	CA	10	2.1 @ 20	2.0 @ 20	697	RHDP	1.39	1.25
97199EE	LSD23265-10	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	5.75	5.19
97201EE	LSD23255-10	2.24"	Red	CC	10	1.7 @ 20	21 @ 20	660	RHDP	4.49	3.95
308208EE	LA2321-42EWRN	2.24"	Green	CA	10	4.2 @ 40	2.7 @ 10	567	RHDP	8.45	8.15
202518EE	LSD30165-20	3.0"	Orange Red	CA	10	8 @ 20	4.5 @ 10	635	RHDP	7.39	6.99
202542EE	LSD30155-20	3.0"	Orange Red	CC	10	8 @ 20	4.5 @ 10	635	RHDP	5.49	4.95
202500EE	LSD40064-20	4.0"	Orange Red	CA	10	2.0 @ 20	18 @ 10	635	RHDP	10.49	9.49
202526EE	LSD50065-20	5.0"	Red	CA	10	17 @ 20	45 @ 10	660	RHDP	34.99	27.89
202534EE	LSD50055-20	5.0"	Red	CC	10	17 @ 20	45 @ 10	660	RHDP	17.95	14.35

## Dot Matrix Displays

Part No.	Mfr. Cross Reference No.	Jameco Socket Number	Character Height	Illuminated Color	Buss Polarity*	Pins/Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing	
											1	10
173833EE	HP5082-7300	—	.290"	Red	4x7 Numeric	8	5.0 @ 170	.3 @ 20	660	RHDP	\$4.95	\$4.46
32951EE	TIL311	37161EE	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	—	16.95	14.35
308152EE	LA5041R-11BRRRN	—	0.500"	Orange	Alphanumeric	18	2.1 @ 20	7.4 @ 10	635	RHDP	1.69	1.49
118906EE	LTP747R	37161EE	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	2 @ 20	655	—	1.95	1.79
308144EE	LJ5763-M1FEWRN	—	1.10"	Red/green	5 x 7 CC/AR	20	1.7/2.1 @ 20	10.8/20.0 @ 10	660/567	—	4.05	3.45
183265EE	LMD5821ASR-20	—	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	3.2 @ 20	660	—	4.95	4.49
308110EE	LJ4071-22 EWRN	—	3.60"	Red	5 x 7 CC/AR	14	3.4 @ 20	30.4 @ 10	660	—	15.45	15.09
308128EE	LJ4071-22 BRRN	—	3.60"	Red	5 x 7 CC/AR	14	3.4 @ 20	30.4 @ 10	660	—	15.45	15.09
308136EE	LJ4071-22 BWRN	—	3.60"	Red	5 x 7 CC/AR	14	3.4 @ 20	30.4 @ 10	660	—	20.65	16.49

\* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row

# LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point



## 20 x 4 Serial LCD Module with Keypad Interface

- 20 characters x 4 line display with large digit mode
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and auto scroll feature
- Backlight supply current: 90mA typical
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using the same 2 wire interface
- Display size: 3.0" L x 1.0" W

**Includes:** Manual and software**Power requirement:** 5VDC @ 16mA typical (recommend P/N 164101EE, pg 38)

Part No.	Product No.	Description	Module Size (LxWxT)	Price
157323EE	LK204-25	Module w/ interface	3.7" x 2.4" x 1.1"	\$77.99



## 16 Characters x 2 Lines Serial LCD Module

- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using same 2 wire interface
- Backlight supply current: 40mA typical
- Display size: 2.5" L x 0.7" W
- Power requirement: 5VDC @ 9mA (recommend P/N 164101EE, pg 38)

**Includes:** Manual and software

Part No.	Product No.	Description	Module Size (LxWxT)	Price
174166EE	LK162-12	16 x 2 w/ interface	3.2" x 1.5" x 0.8"	\$51.99



## 0.6" High 3½-Digit LCD Digital Panel Meters

- Automatic polarity indication
- Input impedance: >100MΩ
- Input Ranges: 200mV, 20V, 200V, 500V
- Bezel • Accuracy: ±0.5%
- Dimensions: 2.7" L x 1.7" W
- Supply voltage: 8–12VDC (recommend 9V battery P/N 151095EE, pg 47)

Part No.	Description	Price
108388EE	PM-428	\$12.95
175951EE	"1999" LCD DPM	12.95
146835EE	"1999" LCD DPM backlit display	19.95



## VL 0.5" High 4-Digit Field Effect LCD Display

- Compatible with socket P/N 78641EE (2), pg 30
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Size: 2.0" L x 1.2" H x 0.1" D
- Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format) and frequency counters

Part No.	Product No.	Price
17110EE	402-DP-RC-S	\$14.95



8.8:8.8

## Scrolling Message Name Tag

*Clip an animated billboard on your shirt!*

The FlashTag is an eye-catching, customizable name tag with scrolling LED messaging that you can program yourself. The FlashTag is perfect for retailers/ sales people, restaurants, trade shows, fund raising events, and the list goes on and on. Approximately the size of a credit card, the FlashTag has 7 different speed settings, scrolls from left to right and its bright red LEDs will ensure your messages are noticed, especially in a crowd.



Part No.	Description	Price
261673EE	Scrolling message name tag w/ serial programmer	\$69.95
262060EE	Additional name tag	55.95

Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

## LCD Parallel Displays

**SALE**

171715EE

- 8-bit interface data bus
- Controller: KS0066U or equivalent
- Character font size: 0.125" W x 0.200" H
- Maximum input voltage: 5.3VDC
- Operating input voltage: 5VDC (recommend P/N 164101EE, pg 38)

171715EE: 16 Characters x 2 Lines

171723EE: 20 Characters x 2 Lines

Part No.	Product No.	Module Size (LxWxT)	Price
171715EE	AC162A	3.4" x 1.2" x 0.5"	\$19.95 \$13.99
171723EE	AC162A	4.6" x 1.5" x 0.4"	24.95



## 16 x 2 Parallel LCD Display with Backlight



- 16 characters x 2 lines
- Character font: 5 x 7 dots
- Input voltage: 5VDC @ 1.6mA
- 14-pin terminal
- 8-bit interface
- Display size: 2.6" L x 0.7" W x 0.4" T
- Module size: 3.3" L x 1.4" W x 0.5" T

Part No.	Product No.	Price
277384EE	PVC160204A	\$13.99



## 16 x 4 Parallel LCD Display



- 4-bit or 8-bit parallel interface
- Control LSI HD44780 or equivalent and column driver MSM5259 or equivalent
- Display size: 2.4" L x 1.0" H

Part No.	Description	Module Size (LxWxT)	Price
210761EE	16 x 4 LCD display	3.4" x 2.4" x 0.3"	\$22.95

**Scott Edwards Electronics, Inc.**

## Serial LCD Modules

*Ideal for use w/ BASIC Stamps (pg 96), 80C52-BASIC controllers (pg 7) and PCs!*

Includes instruction codes for character gen., cursor control, printing, etc. Examples for Stamps in PBASIC included.

### 16 characters x 2 lines Integrated Display



- Terminal style 1200–9600bps serial input with 16-byte input buffer
- EEPROM storage of settings, six custom characters, and a splash screen
- Serial control of the standard LED backlight
- Low current draw: 5mA (backlight off) to 40mA (backlight on and bright)
- Power requirement: 4.8 – 5.5VDC @ 5mA (recommend P/N 164101EE, pg 38)

Part No.	Product No.	Description	Module Size (LxWxT)	Price
150990EE	ILM-216L	LCD module	3.2" x 2.0" x 0.5"	\$48.95

### 16 characters x 2 lines LCD Serial Backpack®



- High-contrast supertwist display
- Serial "backpack" accepts RS-232, or inverted CMOS, TTL at 2400 or 9600bps
- Power requirement: 4.8 – 5.5VDC @ 3mA (recommend P/N 164101EE, pg 38)
- Connector: 5-pin header (recommend P/N 163686EE, pg 29)

Part No.	Product No.	Description	Module Size (LxWxT)	Price
133129EE	BPI-216N	LCD module	3.1" x 1.4" x 0.7"	\$59.95

### 40 characters x 4 lines LCD Serial Backpack®



- High-contrast supertwist display with unique "big character":backlit mode – prints 1" numbers and letters automatically
- Serial input at 1200, 2400, 4800 or 9600bps
- Power requirement: 5VDC @ <10mA (recommend P/N 164101EE, pg 38)
- Module size: 7.5" L x 2.2" W x 0.9" T

Part No.	Product No.	Description	Price
136485EE	BPP-440L	40 x 4 serial LCD display	\$169.95 \$149.95

**SALE**Same Day Shipping  
99% In Stock

Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

## Velleman

### Analog Panel Meters

- Includes mounting hardware
- 316507EE: Includes current shunt

316603EE



316523EE


**NEW**

### Magnetic and Piezo Buzzers



Part No.	Product No.	Measurement Range	Size (W" x H" x D")	1	10
316603EE	AVM6015 — NEW	0 - 15VDC	2.4 x 1.8 x 1.3	\$9.29	\$7.85
316671EE	AVM7015 — NEW	0 - 15VDC	2.8 x 2.4 x 1.4	8.79	7.49
316638EE	AVM6030 — NEW	0 - 30VDC	2.4 x 1.8 x 1.3	8.79	7.49
316654EE	AVM7030 — NEW	0 - 30VDC	2.8 x 2.4 x 1.4	8.79	7.49
316718EE	AVM60150 — NEW	0 - 150VAC	2.4 x 1.8 x 1.3	8.79	7.49
316785EE	AVM60300 — NEW	0 - 300VAC	2.4 x 1.8 x 1.3	8.79	7.49
315301EE	AIM60005 — NEW	0 - 50µA	2.4 x 1.8 x 1.3	9.29	7.85
316523EE	AIM6050 — NEW	0 - 50mA	2.4 x 1.8 x 1.3	8.79	7.49
316486EE	AIM60100 — NEW	0 - 100mA	2.4 x 1.8 x 1.3	8.99	7.65
316558EE	AIM60500 — NEW	0 - 500mA	2.4 x 1.8 x 1.3	8.99	7.65
316566EE	AIM605000 — NEW	0 - 5A	2.4 x 1.8 x 1.3	8.79	7.49
316582EE	AIM705000 — NEW	0 - 5A	2.8 x 2.4 x 1.4	8.79	7.49
316494EE	AIM6010A — NEW	0 - 10A	2.4 x 1.8 x 1.3	8.79	7.49
316507EE	AIM6030A — NEW	0 - 30A	2.4 x 1.8 x 1.3	8.79	7.49

#### Magnetic Buzzer

Fig. 1

Fig. 2

Fig. 3

Fig. 4

#### Piezo Buzzers

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing
							1
196357EE	1	12/5.8	3 - 16	4000	86	.30" H x .54" Dia.	\$2.69
138712EE	1	12/7	3 - 16	4000	80	.30" H x .54" Dia.	2.49
207992EE	2	12/250	6 - 16	3500	105	2.3" L x 1.8" W x 1.6" H	6.95
123537EE	3*	24/20	4 - 28	2900	80	1.4" H x 1.7" Dia.	4.19
76021EE	4	24/20	1.5 - 28	3200	95	1.0" H x 1.1" Dia.	4.99

\* Dual tone

 Find more of what you're looking for at [www.Jameco.com](http://www.Jameco.com)

### Omnidirectional Electret Condenser Microphone Cartridge

- For use with tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Used for recording, testing, and monitoring
- Modems for computers



Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	Pricing
											1	10
136573EE	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	\$.53

### Square/Round Ferrite Speaker

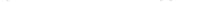
- Pre-tinned speaker lugs
- Anodized metal surfaces
- Large magnet
- Braided copper voice coil leads
- Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Shape	Pricing
			Nom	Max					1
99995EE	FEB204	2.6 x 0.9	3.0	4.0	4	300-1400	1.8 x 0.5	Square	\$2.49
31958EE	FEB216	2.6 x 0.8	0.2	0.4	16	330-8000	1.3 x 0.4	Square	2.25
308267EE	GA0501M	2.0 x 0.8	.25	.5	8	500-7800	0.9 x 0.4	Round	1.99



### Micro Speakers

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input		Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing	
			Nom(W)	Max (W)				1	10
307820EE	GC0201M	1.75 x 0.38	0.1	0.2	8	600-8000	0.67 x 0.13	\$1.39	\$1.25
307871EE	GC0401M	1.57 x 0.67	0.2	0.3	8	600-8000	0.71 x 0.43	2.89	2.59
307854EE	GC0251KP*	1.0" L x 0.55" W	1	1.5	8	750-3500	0.43 x 0.08	1.85	1.75



\* Rectangular micro speaker

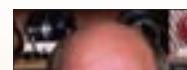
### Practical Practices

Money Saving Tips for the Engineer

#### Don't be Cryptic- Use Your Words!

We want more family and friends to use our hobby projects, but it's not always the case. Have you ever heard "too complicated...", "not sure how to..." or a similar statement? Projects are inviting when they display real words and avoid old-style coded displays.

While LCDs solve many of these problems, hobbyists often avoid using them in their projects. Common comments are that they're difficult to program,



overly expensive, or hard to read.

For those who haven't

designed around one lately, it's

time to take another look at our LCD Modules. Now your devices will be more easily read and used more often! Check out the simple to program devices to the left, consider our awesome prices and then get back to your design desk!

### Capacitors

#### Snap Mount Large-Can Aluminum Electrolytic Capacitors (±20%)

Snap-Ins!

- Designed as an input filter for switched mode power supply; standard 10mm (.40") snap-in spacing
- Operating temperature range: -40°C to +85°C max.
- leakage current: 0.02CV (µA) or 3mA whichever is smaller
- Can-top safety vent

115422EE

#### CROSS REFERENCES:

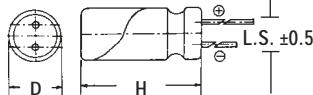
Aero M: LP/LPR; Elna: LP3/LP4; Illinois Capacitor: LBA/LPR; Mallory: LPX; Marcon: CEAWF; Nichicon: LLK/LLQ; Panasonic: TS-UP/TS-U; Phillips (MEPCO): 3487/3489; Rubycon: RSP; Sprague: 80D/82D; United Chemicon: SMG(VN)/SMH(VN)

Part No.	Mfr. Cross Ref. No.	Capacitance	Voltage	Size (mm) D x H	1	10
115422EE	SN4700/50	4,700µF	50V	30 x 41	\$3.19	\$2.69
115431EE	SN6800/50	6,800µF	50V	30 x 51*	2.85	2.41
157737EE	SN10000/50	10,000µF	50V	35 x 40	4.95	4.10

\* Capacitor dimensions and lead spacing may vary

## Aluminum Radial-Lead Electrolytic Capacitors

General purpose low voltage 85°C (A); HT Type 105°C (B) ±20%



Operating temperature range		-40°C to +85°C (A); -40°C to +105°C (B)	
Leakage Current (20°C)	After 1 min.	0.03CV or 4μA, whichever is greater	
	After 2 min.	0.01CV or 3μA, whichever is greater	

\* Prepackaged: order in increments of 10

Part No.	Mfr. Cross Reference No. <sup>†</sup>	Op. Temp	Value (μF)	Voltage (V)	Size (mm)* D x H x LS	Pricing	
						1	10
94160EE	5R1/50	A	1	50	4 x 5 x 1.5	*	\$.12
29831EE	R1/50	A	1	50	5 x 11 x 2	*	.057
158490EE	R2.2/50 — NEW	A	2.2	50	5 x 11 x 2	*	.06
93729EE	R2.2/50	A	2.2	50	5 x 11 x 2	*	.034
135183EE	R3.3/50	A	3.3	50	5 x 11 x 2	*	.045
31000EE	R4.7/50	A	4.7	50	5 x 11 x 2	*	.038
94211EE	5R10/25	A	10	25	4 x 5 x 1.5	*	.13
94220EE	5R10/35	A	10	35	5 x 5 x 2	*	.09
29891EE	R10/50	A	10	50	5 x 11 x 2	*	.06
198942EE	R22J/35	A	22	35	5 x 11 x 2	*	.029
198926EE	R33J/25	A	33	25	5 x 11 x 2	*	.045
93745EE	R33/50	A	33	50	5 x 11 x 2	*	.05
198951EE	R47J/35	A	47	35	5 x 11 x 2	*	.05
94289EE	5R100/16	A	100	16	6 x 5 x 2.5	*	.15
93761EE	R100/25 — NEW	A	100	25V	6 x 11 x 2.5	*	.07
198969EE	R100J/35	A	100	35	6 x 11 x 2.5	*	.07
93778EE	R220/50	A	220	50	10 x 12 x 5	*	.15
93796EE	R330/25	A	330	25	10 x 12 x 5	*	.13
158203EE	R470B16	B	470	16	8 x 11 x 3.5	*	.12
31181EE	R470/25	A	470	25	10 x 12 x 5	*	.12
93817EE	R470/35 — NEW	A	470	35V	10 x 16 x 5	*	.153
30015EE	R1000/16	A	1000	16	10 x 16 x 5	*	.178
93833EE	R1000/25	A	1000	25	10 x 20 x 5	*	.278
158297EE	R1000B25	B	1000	25	10 x 20 x 5	.35	.29
158377EE	R1000B35	B	1000	35	12 x 20 x 5	.49	.45
93841EE	R1000/50	A	1000	50	12 x 25 x 5	.52	.46
199110EE	R1000J/100	A	1000	100	18 x 40 x 2.5	2.99	2.69
30533EE	R2200/25	A	2200	25	12 x 25 x 5	.55	.49
198985EE	R2200J/35	A	2200	35	16 x 25 x 2.5	1.39	1.25
158431EE	R2200B50	B	2200	50	16 x 35 x 7.5	.99	.89
93850EE	R4700/25	A	4700	25	16 x 31 x 7.5	.99	.85
199005EE	R4700J/35	A	4700	35	18 x 35 x 7.5	1.35	1.25
163301EE	R4700/50	A	4700	50	22 x 42 x 10	1.99	1.79
31510EE	R6800/16	A	6800	16	16 x 35 x 7.5	.99	.78

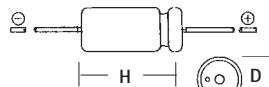
† RADIAL CAPACITOR CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM;

Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/TRA/SGR;

Panasonic: KA/KS/SU \* Capacitor dimensions and lead spacing may vary

## Aluminum Axial-Lead Electrolytic Capacitors

General purpose low voltage 85°C



Operating temperature range		-40°C to +85°C	
Leakage Current (After 2 minutes 20°C)		0.02CV or 2μA, whichever is greater	

\* Prepackaged: order in increments of 10

Part No.	Mfr. Cross Ref. No. <sup>†</sup>	Value (μF)	Voltage (V)	Size (mm)* DxH	Pricing	
					1	10
10911EE	A100/50 — NEW	100	50	8 x 20	*	\$.22
93631EE	A1000/16	1000	16	13 x 27	.46	.41
10954EE	A1000/25	1000	25	13 x 31	.59	.49
11033EE	A2200/16	2200	16	16 x 40	.79	.71
93681EE	A10000/16	10000	16	22 x 51	2.25	2.05

\* Capacitor dimensions may vary

† AXIAL CAPACITOR CROSS REFERENCES: Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU

## Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt, Z5U Temperature Coefficient



Operating temperature range	+10°C to +85°C
Cap. change over temp. range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.

• Prepackaged: order in increments of 10 or 100

Part No.	Mfr. Cross Ref. No.	Capacitance	Voltage (V)	Dia. (mm)*	10	100
15333EE	DC10	10pF	50	5	\$.063	\$.045
14050EE	DC22	22pF	50	6	.07	.05
15528EE	DC470 — NEW	470pF	50	5	.08	.065
15190EE	DC.001	.001μF	50	6	.06	.05
97341EE	DC.0022/1K20	.0022μF	1000	11	.20	.162
15229EE	DC.01	.01μF	50	6	.06	.04
97375EE	DC.11/1K20	.01μF	1000	12	.18	.12
15253EE	DC.047	.047μF	50	8	.084	.069
151116EE	DC.1/25	.1μF	25	6	.14	.13
15270EE	DC.1	.1μF	50	8	.15	.13

\* Capacitor dimensions and lead spacing may vary

## Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications:

- Data processing
- Communications engineering

Operating temperature range: -10°C to +85°C

\* Prepackaged: order in increments of 10

Part No.	Mfr. Cross Ref. No.	Capacitance	Voltage (V)	Size (mm)* W x T x H	Pricing	
					1	10
81541EE	MD10	10pF	50	3.5 x 2.0 x 3.0	*	\$.09
81533EE	MD22	22pF	50	4.0 x 2.0 x 4.0	*	.095
81525EE	MD100	100pF	50	3.5 x 2.0 x 3.0	*	.09
25507EE	MD.01	.01μF	50	3.5 x 2.0 x 3.0	*	.10
57621EE	MD.047	.047μF	50	2.5 x 2.5 x 3.0	*	.072
25523EE	MD.1	.1μF	50	6.0 x 2.0 x 4.0	*	.07
25558EE	MD.47	.47μF	50	4.5 x 2.5 x 4.5	*	.25
81509EE	MD1	1μF	50	6.0 x 3.0 x 7.0	.48	.43
25540EE	MD.22	.22μF	50	6.0 x 2.0 x 4.5	*	.17

\* Capacitor dimensions and lead spacing may vary



## Mylar Capacitors (±10%)

## Metallized Polyester Film Capacitors

- High performance at low cost
- Non-inductive construction

Part No.	Mfr. Cross Ref. No. <sup>†</sup>	Capacitance	Voltage (V)	Size (mm)* L x T x H	Pricing	
					1	10
26884EE	MY.01 — NEW	.01μF	100	6.0 x 3.0 x 7.0	*	\$.10
135562EE	MY.1/50 — NEW	.1μF <sup>††</sup>	50	14.0 x 6.0 x 12.0	*	.11
26956EE	MY.1 — NEW	.1μF	100	12.5 x 5.0 x 9.5	*	.17
93921EE	MY.1/250 — NEW	.1μF	250	12.5 x 5.5 x 10	*	.19
93999EE	MY.2/250 — NEW	2.2μF	250	26.0 x 9.0 x 16.0	.89	.69

†† ±20% tolerance \* Capacitor dimensions and styles may vary

**Help us better supply more of the products you need.**  
**Feel free to send your feedback to: [AtHome@Jameco.com](mailto:AtHome@Jameco.com)**

## Memory Back-Up Capacitors

### Applications:

- Back-up on CMOS microcomputers, static RAM, DTSS (digital tuning systems)
- Memory back-up of remote controllers



142922EE



227811EE

### Features:

- Excellent voltage holding characteristics for low back-up currents
- Small size vs. capacitance
- Capacitance ranges from .047 to 1F

Capacitor dimensions and lead spacing may vary

Part No.	Mfr. Cross Ref. No.	Capacitance (Farad)	Pricing	
			1	10
142922EE	MBC.047/5.5	.047	\$1.49	\$1.34
142949EE	MBC.22/5.5	.22	2.09	1.79
143010EE	MBC.47/5.5	.47	3.49	3.15
142957EE	MBC1.0/5.5	1.0	4.29	3.85
227811EE	S5R5V105	1.0	4.49	3.82

## 14-Pin Crystal Oscillator Socket

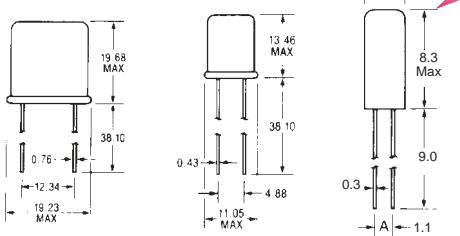
- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine toolled on 4 pins



Part No.	Description	1	10
133006EE	Oscillator socket	\$.55	\$.46

## Crystals

Dimensions in millimeters



### HC33/U Case

- Frequency calibration tolerance:  $\pm 50\text{ppm}$  @  $25^\circ\text{C}$
- Operating temperature:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Drive level: 4.0 mW maximum
- Freq. stability tolerance:  $\pm 50$  ppm from  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Shunt capacitance: 7pF maximum

### Low Profile Crystals

- Frequency range: 3.5 to 70.0MHz
- Operating temp.:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Drive level: 0.5mW (fundamental frequency)
- Aging:  $\pm 5\text{ppm}/\text{year}$  maximum
- Frequency stability tolerance:  $\pm 50\text{ppm}$

Expanded Selection

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	Pricing	
					1	10
14349EE	CY1	1.0	13pF	MC6800/6808/6809E/6500 series	\$4.95	\$4.49

### HC33/U Case

### HC49/U (HC18/U) Case

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	1	10
101274EE	CY2.457	2.4576	32pF	CDP1702/1802C/1804/1804C	\$.99	\$.89
14533EE	CY3.57	3.579545	18pF	MC6801,2,3/MM5369	.59	.54
14568EE	CY3.68	3.6864	18pF	8748/8035-8	.89	.79
14592EE	CY4	4.0	20pF	MCS-40/MC6802,8,9/CDP1802	.59	.54
14621EE	CY4.91 — NEW	4.9152	Series	CDP1802C/1804/1804C	.89	.79
14381EE	CY10	10.0	Series	MCS-85/8085A-2	.79	.69
120061EE	CY11.05	11.0592	Series	General purpose	.89	.79
14402EE	CY12 — NEW	12.0	Series	MCS-86/8086/8284/8202	.89	.75
14517EE	CY20	20.0	Series	MCS-80/8080A/8224	.79	.69

### TF Case

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	1	10
14584EE	CY32.76	32.768kHz	10.5pF	Tuning fork	\$.89	\$.79

### HC49/S Case (Low Profile)

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Imped.	Max. Resist.	Pricing		
					1	10	
137832EE	CY4LP	4.000	17pF	120Ω	MCS-40/MC6802, 8, 9/CDP1802	\$.99	\$.89
137875EE	CY11.05LP	11.0592	Series	50Ω	General purpose — NEW	1.05	.81

Full Can	Pin #	Function	Pin #	Function
	1	N/C	8	Output
	7	GND	14	+5VDC

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Max Input Current	Rise Fall Time	Input Current	Pricing	
						1	10
27861EE	OSC1	1.0	7mA	15ns	45mA	\$2.75	\$2.45
27967EE	OSC4	4.0	7mA	10ns	50mA	1.99	1.79
27991EE	OSC8	8.0	15mA	15ns	30mA	1.99	1.79
27887EE	OSC10	10.0	15mA	10ns	20mA	1.99	1.79
27895EE	OSC12	12.0	15mA	10ns	50mA	1.99	1.79
27932EE	OSC20	20.0	17mA	10ns	20mA	1.79	1.59
76831EE	OSC50	50.0	25mA	6ns	25mA	1.99	1.79
76857EE	OSC100	100.0	25mA	3ns	90mA	2.49	2.25



\* Prepackaged: order in increments of 10

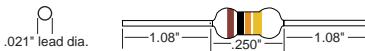
## Dipped Tantalum Capacitors ( $\pm 10\%$ )

### Resin Dipped Solid Tantalum Capacitors

- Flame retardant coating
- Designed for entertainment and commercial equipment
- Operating temp range:  $-55^\circ\text{C}$  to  $+85^\circ\text{C}$  ( $+125^\circ\text{C}$  with derating)

142922EE

</

Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors ( $\pm 5\%$ )

To order: Use 5-digit part number adjacent to ohms in chart below  
Values may not be combined for quantity price breaks

99¢/bag  
100 piece bags

Pricing (Sold in bags of 100 pieces)

Specify Part No. & Resistor Value (see Standard Resistor Value Chart below)	1 Bag	10 Bags	50 Bags	100 Bags
	\$0.99/bag	\$5.57/bag	\$4.49/bag	\$4.46/bag

For more resistor values you can refer to our website @ [www.Jameco.com](http://www.Jameco.com)

Assortment Pricing: 1/4-Watt Carbon Film Resistor ( $\pm 5\%$ )

Assortments may not be combined for quantity price breaks

Part No.	Description (Including bulk pack values)	1	10	25
10719EE	5 ea. of 70 values (every other value from 10 ohm-5.6 M $\Omega$ ) (350 pcs.)	\$9.95	\$8.95	\$7.95
103165EE	10 ea. of 24 values marked (●) and 50 ea. of 6 values marked (●) (540 pcs.)	12.95	11.49	9.95
10663EE	100 ea. of 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
10655EE	100 ea. of 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
81832EE	1/4 watt resistor component cabinet kit - 30 values (540 pcs.) see page 34	27.95	24.95	22.49

## Standard Resistor Values Chart

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms								
29882EE	● 10	30162EE	● 150	30963EE	● 390	29663EE	● 1.0k	30314EE	● 2.2k	31237EE	● 5.1k	30453EE	● 22k	30525EE	● 220k
31106EE	● 47	30470EE	● 220	31165EE	● 470	29735EE	● 1.2k	30390EE	● 2.7k	31270EE	● 5.6k	30841EE	● 33k	31202EE	● 470k
29946EE	● 100	30605EE	● 270	31376EE	● 560	29760EE	● 1.5k	30672EE	● 3.3k	29911EE	● 10k	31149EE	● 47k	29698EE	● 1.0M
30082EE	● 120	30867EE	● 330	31499EE	● 680	30277EE	● 2.0k	31026EE	● 4.7k	30146EE	● 15k	29997EE	● 100k	29938EE	● 10M

1/8-Watt Carbon Film Resistor ( $\pm 5\%$ ) Assortments

• 1/8-W - \$12.95/k (bulk) • 1/2-W - \$15.95/k (bulk)

Part No.	Cross Ref. No.	Values included	Description (see chart below)	Pricing	
				1	10
108290EE	ASST1827	✓	100 ea. of 27 values marked by ✓ (2,700 pcs.)	\$29.95	\$26.95

## 1/8 &amp; 1/2-Watt Resistor Assortments Value Chart (Ohms)

10 ✓X	150 ✓X	330 ✓X	680 ✓X	2.0k ✓X	3.3k ✓X	5.6k ✓X	15k ✓X	33k ✓X	470k ✓X
47 ✓X	220 ✓#	390 X	1.0k ✓#	2.2k ✓X	4.7k ✓#	6.8k X	22k ✓X	47k ✓X	1.0M ✓X
100 ✓#	270 ✓X	470 ✓X	1.5k ✓X	2.7k ✓X	5.1k ✓X	10k ✓#	27k X	100k ✓#	10M ✓X

(✓), (X), (#) symbols indicate Resistor values included in Assortments above and below.

1/2-Watt Carbon Film Resistor ( $\pm 5\%$ ) Assortments

• 1/8-W - \$12.95/k (bulk) • 1/2-W - \$15.95/k (bulk)

Part No.	Cross Ref. No.	Values Included	Description (see chart above)	Pricing	
				1	10
107844EE	ASST1227	✓	100 ea. of 27 values marked by ✓ (2,700 pcs.)	\$34.95	\$31.49
107836EE	ASST1270	-	5 ea. of 70 values (every other value from 10Ω - 5.6MΩ) (350 pcs.) (see chart above)	10.95	9.95
107879EE	CAB12R	-	1/2-watt resistor component cabinet kit - 30 values (540 pcs.), see page 34	29.95	26.95

More Products @ [www.Jameco.com](http://www.Jameco.com)

SMD Resistor Assortment ( $\pm 5\%$ )\*

144 Values, 50 pcs. each; 7,200 Pieces Total



## Resistance Value Chart:

1.2	33	430	4.3k	51k	620k
1.6	39	470	4.7k	56k	750k
2.2	43	510	5.6k	62k	820k
2.4	47	560	6.2k	68k	910k
2.7	51	620	6.8k	75k	1.0M
3.0	56	680	7.5k	82k	1.6M
3.3	62	750	8.2k	91k	1.8M
4.3	68	820	9.1k	100k	2.0M
4.7	75	910	10k	110k	2.2M
5.1	85	1.0k	11k	120k	2.4M
5.6	91	1.1k	12k	150k	2.7M
6.2	110	1.2k	13k	160k	3.0M
6.8	120	1.3k	15k	180k	3.3M
7.5	130	1.5k	16k	200k	3.6M
8.2	150	1.6k	18k	220k	3.9M
9.1	160	1.8k	20k	240k	4.3M
10	180	2.0k	22k	270k	4.7M
16	200	2.2k	24k	300k	5.1M
18	220	2.4k	27k	360k	5.6M
20	240	2.7k	30k	390k	6.8M
22	270	3.0k	33k	430k	7.5M
24	300	3.3k	36k	470k	8.2M
27	360	3.6k	39k	510k	9.1M
30	390	3.9k	43k	560k	10M

- Surface mount 0805 resistors, 144 values ranging from 1.2Ω to 10MΩ (50 pieces of each value)
- Thickness: 0.5mm
- Size: 2.0mm x 1.25mm
- Max. overload voltage: 200V
- Op. temp.: -50°C to 120°C
- Includes: Case w/ labels

1206 Resistor Assortment ( $\pm 1\%$ )

56 Values, 200 pcs. each; 11,200 pcs. Total



Packaged in strips of 200 pcs. each

- Max. working voltage: 200V
- Power: 1/8W
- Operating temperature: -55°C to +125°C
- Temp. coeff.:  $\pm 100$  ppm/°C
- Resistor dimensions (mm): 3.10L x 1.5 W x 0.55H

Part No. Mfr. Cross Ref. No. Price  
156881EE SMR1206SB — NEW ..... \$99.99

## Value Chart (Ohms)

10	200	3.92k	75k
12.1	243	4.99k	90.9k
15	301	6.19k	100k
20	392	7.5k	121k
24.3	499	9.09k	150k
30.1	619	10k	200k
39.2	750	12.1k	243k
49.9	909	15k	301k
61.9	1k	20k	392k
75	1.21k	24.3k	499k
90.9	1.5k	30.1k	619k
100	2k	39.2k	750k
121	2.43k	49.9k	909k
150	3.01k	61.9k	1M

The Best Values  
We search the world to find you the best values!

The Lowest Prices  
We guarantee the lowest price in any catalog.

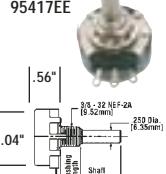
60% More Products  
We've added 60% in the last year.

Immediate Availability  
Same day shipping on orders placed before 6pm EST.

## Honeywell

2-Watt Linear Taper ( $\pm 10\%$ )

95417EE



Part No.	Product No.	Ohms	1	10
183610EE	53C3-500	500.....	\$7.39	\$6.54
13936EE	53C3-1K	1k.....	7.39	6.54
241613EE	53C3-2K	2k.....	7.39	6.54
13995EE	53C3-5K	5k.....	7.39	6.54
13952EE	53C3-10K	10k.....	7.39	6.54
95417EE	53C3-50K	50k.....	7.39	6.54
13979EE	53C3-100K	100k.....	7.39	6.54

### 5-W Linear Taper Wire Wound ( $\pm 20\%$ )

- Temperature range: -10°C to 70°C
- Shaft dia.: 0.23" (6mm)
- length: 0.67", except P/N 140521EE (0.25")
- Non-rotational key
- Max. panel thickness: 0.1"
- Mounting hole: 0.32" **Includes:** Mounting hardware

Part No.	Mfr. Cross Ref. No.	Ohms	1	10
140513EE	PW5B100	100	.....	\$2.79 \$2.35
140521EE	PW5B500	500	.....	2.79 2.35



### 1/2-Watt Linear Taper ( $\pm 10\%$ )

- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.5625"
- Max. panel thickness: 0.1875"

**Includes:** Mounting hardware

Part No.	Mfr. Cross Ref. No.	Ohms	1	10
29049EE	P1K	1k	.....	\$0.99 \$0.79
29081EE	P10K	10k	.....	.99 .79
29102EE	P100K	100k	.....	.99 .79
29065EE	P1MEG — NEW	1M	.....	.99 .79



### 1/4-Watt 24mm Linear Taper with Switch ( $\pm 20\%$ )

- Maximum voltage: 500V
- Switch circuit: SPST
- Switch rating: 125VAC, 1A
- Rotational angle: 300° ( $\pm 5\%$ )
- Shaft length: 0.335" • Terminal type: solder lugs

Part No.	Product No.	Ohms	1	10
263759EE	RV24A01-10-15R1-B52	500	.....	\$1.59 \$1.36
263767EE	RV24A01-10-15R1-B13	1k	.....	1.59 1.36
263783EE	RV24A01-10-15R1-B53	5k	.....	1.59 1.36
263791EE	RV24A01-10-15R1-B14	10k	.....	1.59 1.36
263812EE	RV24A01-10-15R1-B54	50k	.....	1.59 1.36
263821EE	RV24A01-10-15R1-B15	100k	.....	1.59 1.36
263855EE	RV24A01-10-15R1-B16	1M	.....	1.59 1.36



**SALE**

### 1/4-Watt 24mm Audio Taper ( $\pm 20\%$ )

- Maximum voltage: 250V
- Terminal type: solder lugs
- Insulation resistance: >100MΩ @500VDC
- Rotational angle: 300° ( $\pm 5\%$ ) • Shaft length: 0.335"

Part No.	Product No.	Ohms	1	10
255396EE	RV24A-10-15R1-A13	1k	.....	\$1.19 \$.91
255417EE	RV24A-10-15R1-A53	5k	.....	1.19 .91
255425EE	RV24A-10-15R1-A14	10k	.....	1.19 .91
255433EE	RV24A-10-15R1-A54	50k	.....	1.19 .91
255441EE	RV24A-10-15R1-A15	100k	.....	1.19 .91
255468EE	RV24A-10-15R1-A16	1M	.....	1.19 .91



### 1/4-Watt 24mm Audio Taper with Switch ( $\pm 20\%$ )

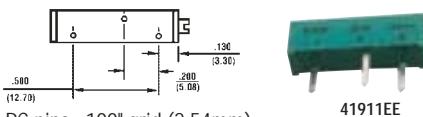
- Voltage rating: 250V
- Switch circuit: SPST
- Switch rating: 125VAC, 1A
- Rotational angle: 300° ( $\pm 5\%$ ) • Shaft length: 0.590"

Part No.	Product No.	Ohms	1	10
263601EE	RV24A01-10-15R1-A13	1k	.....	\$1.59 \$1.36
263610EE	RV24A01-10-15R1-A53	5k	.....	1.59 1.36
263636EE	RV24A01-10-15R1-A14	10k	.....	1.59 1.36
263644EE	RV24A01-10-15R1-A54	50k	.....	1.59 1.36
263652EE	RV24A01-10-15R1-A15	100k	.....	1.59 1.36
263679EE	RV24A01-10-15R1-A16	1M	.....	1.59 1.36



**SALE**

### 3/4-Watt, 3/4" Rectangular 15-Turn Linear Cermet ( $\pm 10\%$ )



- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Temp. range: -55°C to +125°C
- Side adjusting

Part No.	Mfr. Cross Ref. No.	Ohms	1	10
41937EE	43P500	500	.....	\$1.05 \$.99
41785EE	43P1K — NEW	1k	.....	1.05 .99
41890EE	43P5K	5k	.....	1.05 .99
41822EE	43P10K	10k	.....	1.05 .99
41911EE	43P50K	50k	.....	1.05 .99
41849EE	43P100K	100k	.....	1.05 .99

41911EE

**Bourns**

- Resistance tolerance:  $\pm 10\%$
- Insulation resistance: (500VDC) 1000MΩ min.

**Series 3299:**

- 25-turn; cermet type
- Absolute minimum resistance: 2Ω or 1% max.
- Load life: 200 cycles, 0.5W



Series 3299

**Series 3540:**

- 10-turn; wirewound
- Absolute minimum resistance: 1Ω or 0.1% max.
- Load life: 1000 hours, 2W

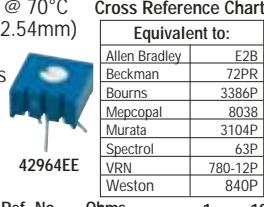


Series 3540

Part No.	Product No.	Ohms	1	10
183556EE	3299W-1-102	1k	.....	\$2.39 \$2.25
183564EE	3299W-1-103	10k	.....	2.39 2.25
238633EE	3299W-1-203	5k	.....	2.39 2.25
238650EE	3299W-1-503	50k	.....	2.39 2.25
183572EE	3299W-1-104	100k	.....	2.39 2.25
183548EE	3540S-1-502	5k	.....	12.79 12.35
183521EE	3540S-1-103	10k	.....	12.79 12.35

[More @ www.Jameco.com](http://www.Jameco.com)

### 1/2-Watt, 3/8" Square, Single-Turn Cermet ( $\pm 10\%$ )



- 1/2 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Top adjusting
- Temp. range: -55°C to +125°C

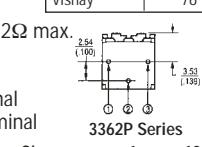
Cross Reference Chart

Equivalent to:
Allen Bradley E2B
Beckman 72PR
Bourns 3386P
Mepcopal 8038
Murata 3104P
Spectrol 63P
VRN 780-12P
Weston 840P

Part No.	Mfr. Cross Ref. No.	Ohms	1	10
43123EE	63P500	500	.....	\$0.85 \$.79
42964EE	63P1K	1k	.....	85 .76
43043EE	63P2K	2k	.....	85 .76
43078EE	63P5K	5k	.....	85 .79
43001EE	63P10K	10k	.....	85 .79
43051EE	63P20K	20k	.....	85 .76
43107EE	63P50K	50k	.....	85 .79
43027EE	63P100K	100k	.....	85 .79
43060EE	63P300K †	300k	.....	85 .76
63212EE	63P500K	500k	.....	85 .79
42981EE	63P1MEG	1M	.....	85 .79
10521EE	63P2MEG †	2M	.....	85 .76

† Pin spacing 0.2"

Equivalent to:
3362P Series
Bourns 3362P
Copal CT-6P
Murata PVC6
Vishay 76



3362P Series

Part No. Mfr. Cross Ref. No. Ohms 1 10

Part No.	Mfr. Cross Ref. No.	Ohms	1	10
191644EE	3362P-200	20	.....	\$0.69 \$.62
182828EE	3362P-502	5k	.....	.69 .62
182836EE	3362P-103	10k	.....	.69 .62

### Aluminum Instrumentation Knobs (1/8" and 1/4" Shaft Diameters)

**Includes:** Set screw for secure attachment

290124EE: Coarse surface for sensitive control; 1/8" shaft diameter



162481EE

290124EE

162499EE

138481EE / 138501EE

138491EE

138501EE

138502EE

138503EE

138504EE

138505EE

138506EE

138507EE

138508EE

138509EE

138510EE

138511EE

138512EE

138513EE

138514EE

138515EE

138516EE

138517EE

138518EE

138519EE

138520EE

138521EE

138522EE

138523EE

138524EE

138525EE

138526EE

138527EE

138528EE

138529EE

138530EE

138531EE

138532EE

138533EE

138534EE

138535EE

138536EE

138537EE

138538EE

138539EE

138540EE

138541EE

138542EE

138543EE

138544EE

138545EE

138546EE

138547EE

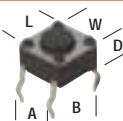
138548EE

138549EE

138550EE

**Tactile Switches**

- Bounce time: 10 msec.
- SPST momentary ON
- Contact resistance: 100mΩ



\* Prepackaged: order in increments of 10

Part No.	Mfr. Cross Ref. No.*	Pins	Dimensions (in.)			Lead Spacing	Contact Rating	Lead Type	Pricing				
			L	W	D				1	10			
119010EE	KT1IBCM	8	.24	.24	.15	.13	.17	.25	20mA @ 15 VDC	PC	Black	\$27	\$24
149948EE	KT11P4CM	4	.24	.24	.15	.30	.17	.25	20mA @ 15 VDC	PC	Black	*	.23
199726EE	EVQ11A04M	2	.24	.24	.14	.30	.20	—	20mA @ 15 VDC	PC	Black	.27	.199

\* Manufacturer Cross Reference Number and Manufacturer may vary

**Pushbutton Binary Coded Decimal (BCD) Switch****Pushbutton Switch Specifications:**

- Contact resistance: 100mΩ max.
- 1/16" maximum panel thickness
- Gold plated BE-CU alloy contacts
- 0.15A @ 50VAC/28VDC
- Break before make
- Switches snap together
- Operating temperature: -40°C to +85°C
- Continuous load: 1 amp max.
- Front snap-tab mounting with end plates



Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	Pricing	
					1	10
26788EE	MX72	10-position pushbutton	1.2 x 0.3 x 1.7	0.19"	\$5.69	\$5.15
26761EE	MXEP2	Mounting end plates for 26788	1.2 x 0.2 x 1.1	—	1.15	.99

**PC Mount Slide Switch**

- Two mounting flanges
- Nylon actuator
- Height: .15"
- Housing: plastic, 6/6 nylon
- Top actuation
- Phenolic insulated
- Actuator length: .17"
- SPDT on-on
- Contact rating: 0.5A @ 50VDC
- Lead: .12"

Part No.	Description	Pins	Lead Spacing	1	10
109170EE	PC mount slide switch — NEW	3	.22" L x .45" W x .23" D	\$.31	\$.26

**For our full line of switches visit us @ [www.Jameco.com](http://www.Jameco.com)****DIP Switches**

- Switch contacts: SPST
- 50VDC @ 100mA
- Standard switches have raised lever
- LP switches are flush to casing
- Switches are numbered
- Molded construction
- Pre-tinned leads

**Compatible Socket Chart, see website for Sockets**

Switch	Socket	Switch	Socket	Switch	Socket
38818EE	51570EE	38826EE	37161EE	139002EE	51570EE
139011EE	37372EE	38842EE	37372EE	38797EE	38607EE

\* Manufacturer Cross Reference Number and Manufacturer may vary

**SPST Round Keylock Switches**

- Used in computer & other security systems
- Key removable from 2 positions
- Mounting hole = 0.75" except P/N 106649EE = 0.5"

196648EE: all keys are alike

Includes: Mounting nut

Part No.	Mfr. Cross Ref. No.	No. Flat, Dia.	Length	Terminal	Voltage/Current	Pricing	
						1	10
106649EE	KS4B	2, .21"	.55"	Barrel	125VAC/3A	\$3.59	\$3.29
105831EE	KS3B	2, .66"	1.48"	.25" quick connect	125VAC/6A	3.99	3.59
196648EE	3313E-M	2, .66"	1.48"	.25" quick connect	125VAC/6A	4.49	3.99

**12-Button Telephone Keypads**

- White plastic
- 8-pin .100" header
- Tactile type keypad
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 cycles per key
- Size: 2.8" L x 2.2" W x 0.6" H

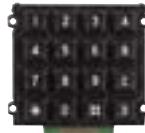
153488EE



Part No.	Description	Price
190561EE	Numeric keypad	\$8.75
153488EE	Alpha numeric keypad	9.49

**16-Button Numeric Keypad**

- 4 x 4 matrix keypad
- 8-position solder pad
- Contact rating: 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0" L x 2.8" W x 0.6" H



Part No.	Description	Price
169244EE	Numeric keypad	\$7.95

**16-Button Indoor/Outdoor Keypads**

- 9-pin 0.100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190EE header and 100765EE pin
- Size (housing): 4.7" W x 1.7" H x 0.4" T



\* Prepackaged: please order in increments of 10

Part No.	Description	1	10
196171EE	2x8 matrix keypad	\$16.95	\$15.29
152063EE	4x4 matrix keypad	14.95	13.49
103190EE	Header housing (10-pin)	.42	.39
100765EE	Header pin (10 per pack)	*	.11

**16-Button Keypad Switch**

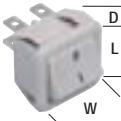
- 1/2" button centers
- Flange mounted
- Top surface or sub surface mounting
- Snap-dome contact provides positive feedback
- 4 x 4 grid
- Rating @ 24VDC: 10mA resistive
- Contact resistance: 10Ω maximum (compatible with MOS, TTL, and DTL)
- Voltage breakdown: 250VAC between mutually insulated parts
- Life expectancy: 3,000,000 operations per button

Part No.	Product No.	Price
302025EE	86BB2-006	\$18.55

**PC Rocker Switch**

- For mini-tower cases
- DPST
- Contacts rated at 250VAC
- UL/CSA approved
- Size: 0.9" L x 1.2" W x 1.4" D

F A S C



Part No.	Description	Current	1	10
127028EE	PC rocker	10A	\$2.95	\$2.69

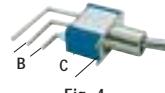
## Miniature Toggle Switches

- Mounting hole diameter: 1/4"

Includes: Mounting hardware


**Fig. 1**

**Fig. 2**

**Fig. 3**

**Fig. 4**

**Fig. 5**

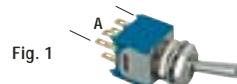
Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type () Momentary	Size (L" x W" x D")	Lead Spacing (A"/B"/C")	Contact Rating (A @ VAC)	Lead Type	Lever Type	1	10		
76523EE	JMT113	1	2	SPST on-off	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	\$1.15	\$1.03
21936EE	JMT123	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.03
21910EE	JMT121	3	3	SPDT on-off-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.35	1.25
22832EE	LFH123	3	3	SPDT on-on	.52 x .28 x .36	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.15	1.05
75854EE	SWM132	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16
75889EE	SWM129	3	3	SPDT (on)-off-(on)	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.99	1.85
26331EE	MPC123	3	3	SPDT on-on	.52 x .32 x .37	—	.185	—	6 @ 125 & 3 @ 250	PC straight	Round	1.39	1.25
26315EE	MPC121	3	3	SPDT on-off-on	.52 x .32 x .37	—	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.29	1.15
71597EE	SWM148	4	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	5 @ 125 & 2 @ 250	PC right angle	Round	1.19	1.09
75871EE	SWM145	5	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	6 @ 125 & 3 @ 250	PC right angle	Round	1.49	1.35
22841EE	LFH221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	3 @ 125 & 1 @ 250	Solder lugs	Flat	1.45	1.35
21979EE	JMT223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.49	1.29
22859EE	LFH223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.29	1.19
75900EE	SWM133	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35
21952EE	JMT221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16
75951EE	SWM130	2	6	DPDT (on)-off-(on)	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35
26366EE	MPC223 — NEW	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.49	1.35
26358EE	MPC221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.29	1.16
105814EE	SWA208 — NEW	1	6	DPDT on-(on)	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.59	1.45

## Subminiature Toggle Switches

- Mounting hole diameter: 7/32"

- Metal construction

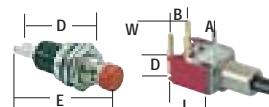
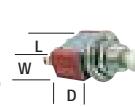
Includes: Mounting hardware



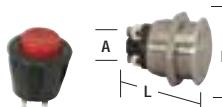
Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Size (L" x W" x D")	Lead Spacing (A"/B")	Contact Rating	Lead Type	Lever Type	1	10	
72160EE	SW1501	1	2	SPST on-off	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	\$1.09	\$1.07
75969EE	SWM136	1	3	SPDT on-on	.33 x .21 x .33	.10	—	3.0A @ 125VAC	Solder lugs	Round	1.55	1.44
138907EE	SW1503	1	6	DPDT on-off-on	.36 x .37 x .33	.10	—	3.0A @ 120VAC	Solder lugs	Round	1.29	1.05
75977EE	SWM137	2	6	DPDT on-on	.33 x .37 x .33	.17	.10	1.5A @ 250VAC	Solder lugs	Round	1.29	1.05

## Pushbutton Switches

- Pins: 2
- Normally open & closed configurations
- Momentary action pushbutton switches


**Fig. 1**

**Fig. 2**

**Fig. 3**

**Fig. 4**

**Fig. 5**

**Fig. 6**

**Fig. 7**

**Fig. 8**

**Fig. 9**

Part No.	Mfr. Cross Ref. No.	Fig.	Mount Hole Dia.	Type () Momentary	Size (L" x W" x D")	Lead Spacing (A"/B")	Contact Rating	Terminal Type	Button Color	1	10	
26622EE	MS102	1	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	—	.14	3A @ 125VAC	Solder lugs	Red	\$ .55	\$ .50
307889EE	DS133	8	29/64"	SPST off-(on)	1.03 x .56 x .46	—	—	10A @ 125VAC	Solder lugs	Black	4.15	3.75
26649EE	MS103	1	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	—	.17	3A @ 125VAC	Solder lugs	Black	.55	.50
71642EE	SWB210	2	7/32"	SPST off-(on)	.33 x .36 x .20	.20	.20	1A @ 120VAC	PC right angle	Black	2.19	1.99
121304EE	CK8121	3	1/4"	SPDT on-(on)	.52 x .27 x .38	—	.185	5A @ 125VAC	Solder lugs	White	3.59	3.25
164638EE	MS3120R	4	—	SPST off-(on)	1.1" L x .31" Dia.	.175*	—	3A @ 125VAC	Solder terminal	Red	1.65	1.49
106112EE	DS412R	5	—	SPST off-(on)	.63" L x .66" Dia.	.275*	—	3A @ 125VAC	Solder lugs	Red	1.05	1.03
171774EE	AV191003C900	6	3/4"	SPST off-(on)	1.20" L x 0.87" Dia.	.37*	—	2A @ 48VDC	Screw	Silver	11.95	10.84
174414EE	R13-510A	7	1/2"	SPST off-(on)	.67" L x .31" Dia.	—	.167	3A @ 125VAC	Solder lugs	Red	.79	.78
196921EE	196921 — NEW	9	29/64"	SPST off-on	1.6" L x 1.6" Square	.189	—	3A @ 110VAC	Solder terminal	Red	1.69	1.49

## Full-Size Toggle Switches

- Panel mount
- Mounting hole diameter: 1/2"
- Full-size round lever

- Medium duty
- Keyed plate indicates switch position
- Round

Includes: Mounting hardware and on/off plate

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A" B" C"	Contact Rating (A @ VAC)	Lead Type	Pricing		
									1	10	
76241EE	SWM128	1	2	SPST on-off	1.00 x .56 x .52	.23	—	4 @ 125 & 2 @ 250	Solder lugs	\$1.49	\$1.29
158060EE	JKN32	1	4	DPST on-on	1.00 x .56 x .52	.23	.23	4 @ 125 & 2 @ 250	Solder lugs	1.15	1.05
158078EE	JKN3CC	1	6	DPDT on-on	1.19 x .76 x .73	.44	.59	10 @ 125 & 6 @ 250	Screw lugs	1.75	1.59
76232EE	SWM125	2	2	SPST on-off	1.00 x .53 x .51	—	—	6 @ 125 & 3 @ 250	6" lead wire	1.75	1.59
76259EE	SWM126 NEW	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	5 @ 125 & 3 @ 250	Solder lugs	1.59	1.45

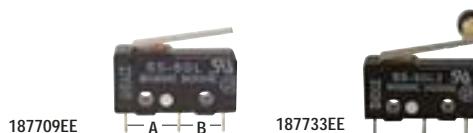


**We'll Beat Their Prices by 10%!**

*If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% down to our cost. Just call us. It's that simple.*

**OMRON SS Subminiature Basic Switches**

- Economical, subminiature basic switch offers long service life
- Free from overtravel restrictions, permits easy setting
- Lead spacing: A = 0.35"; B = 0.29"
- Dimensions: 0.78" L x 0.25" W x 0.40" H

**NEW**

Part No.	Product No.	Mfg.	Actuator Type	Contact Form	Contact Rating	Contact Force	Service Life (Mech./Elec.)	Terminal Type	Pricing
									1 25 50
187709EE	SS-5GL — NEW	Omron	Hinge lever (0.6" L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	\$1.59 \$1.45 \$1.29
187733EE	SS-5GL2 — NEW	Omron	Hinge roller (0.6" L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	1.25 1.09 .99

**OMRON Miniature Basic Lever Switch**

- 3 terminals: common; normally open; normally closed
- Actuator type: long hinge lever (2.01" L)
- Contact form: SPDT-NC
- Contact rating: 0.1A@125VAC, 10A@250VAC
- Resistance (initial): 30 milliΩ (max)
- Service life (mech/elec): 50M/300K
- Terminal type: .183" quick connect
- Size: 1.10" L x 0.40" W x 0.63" H

Part No.	Product No.	1	25
187805EE	V-10G3-1C24K — NEW	\$2.75	\$2.48

**ServoFlo 0 to 7 PSI Pressure Sensor**

- Max. load pressure: 10.5 PSI
- Input excitation: 1.5mA
- Span output: 60-140mV
- Bridge resistance: 5kΩ ±1kΩ
- Accuracy: ±5% full scale
- High output, accuracy and stability
- Low noise
- 1/8" diameter tubing is applicable
- Size: 0.5" L x 0.5" W x 0.2" H

Part No.	Product No.	1	10
163731EE	FPM07PG	\$11.95	\$10.19

**Fujikura -1.1 to 2.5 PSI Pressure Sensor**

- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Volt-level output
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span

Part No.	Product No.	1	10
196103EE	XFPN-025-KPGRNW1	\$24.95	\$21.25

**Latched Hall Effect Sensor**

- SP (south pole): on
- NP (north pole): off
- Supply voltage: 20Vcc
- Supply current: 4mA
- Output current: 20mA
- Max. operating point: ≤ 130
- Max. release point (gauss): ≤ 130

Part No.	Mfr. Cross Ref. No.	1	10
174043EE	HI-300	\$.95	\$.86

**More at [www.Jameco.com](http://www.Jameco.com)****OMRON D2F Series Subminiature Snap-Action Switch**

- Actuator type: hinge lever (0.5" L)
- Contact form: SPST-NC
- Contact rating: 2A @ 30VDC, 3A @ 125VAC
- Initial contact resistance: 30milliΩ max.
- Service life: 1M (mech.); 30k (elec.)
- Terminal type: PCB
- Lead spacing: 0.2"
- Dimensions: 0.50" L x 0.23" W x 0.26" H

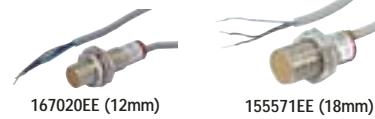
Part No.	Product No.	1	25
188867EE	D2F-L — NEW	\$.89	\$.83

**Magnetic Reed Switches**

164081EE

- NO (normally open)
- Contact form: SPST
- Rating: 500mA @ 100VDC

Part No.	Product No.	Size	1	10
171871EE	MKA141011015	1.73" L x 0.1" Dia.	\$.79	\$.64
164081EE	MRS1	2.35" L x 0.2" Dia.	....	....

**Same day shipping on orders placed before 6pm EST.****12VDC Inductive Proximity Switch Sensors***Cylindrical and Square Styles*

167020EE (12mm) 155571EE (18mm)

- LED status indicator
- Pre-tinned pigtail

Part No.	Product No.	Output Circuit	Effec. Dist. (Iron)	Standard Target (Iron) (mm)	Size (L" x W" x H")	Mounting Hole (in.)	Pricing
							1 10 25
167020EE	TS12-02N-1	NPN	0-1.6mm	12 x 12 x 1	1.8" L x 0.46" Dia.	0.46	\$20.65 \$18.61 \$16.75
155571EE	TS18-05N-1	NPN	0-4.0mm	18 x 18 x 1	1.6" L x 0.70" Dia.	0.70	24.95 22.46 20.21

**0 to 1.45 PSI Pressure Sensor**

- Typical full scale span @ 35mV: 0-10kPa (0-1.45 PSI)
- Maximum pressure (P<sub>MAX</sub>): 75kPa (10.875 PSI)
- Operating volt. (typical): 3VDC @ 6mA
- Applications: air movement control, level indicators, leak detection, robotics and industrial controls
- 1/8" diameter tubing applicable
- Size: 0.7" Dia. x 0.78" Thick (with nozzle)

Part No.	Product No.	1	10
218827EE	MPX10GS	\$8.99	\$7.99

**Vibration/Tilt Switch Sensor**

Detects motion or vibration when the switch is mounted such that its main axis is near to the horizontal.

- Contact form: SPDT
- Max. contact load: 24VDC/115VAC @ 0.5A
- Typical contact resistance: 1Ω (measured at 5VDC @ 0.01A with switch tilted 45° beyond operating point)
- Tilt: one plane only; ±10 deg. included angle
- Minimum operating temperature: -37°C

Part No.	Mfr. Cross Ref. No.	1	10
235926EE	Series 3004	\$1.49	\$1.25

**Ultrasonic Sensor Sets**

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case

**136653EE:****Transmit/Receive Set**

- Capacitance: 2000pF ±30%
- Case size: 0.47" H x 0.62" Dia.

136653EE

- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- Lead length/spacing: 0.39"

- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1 µbar) R=3.9kΩ

139491EE

**Transmit/Receive Set**

- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, minimum sensitivity 67dB/40±1.0kHz (0dB vs 1 µbar) R=3.9kΩ
- Case size: 0.30" H x 0.43" Dia.

**Part No. Mfr. Cross Ref. No. 1 10**

136653EE	40TR16F	\$6.95	\$6.29
139491EE	40TR12B	6.95	6.29

## General Purpose Relays

- DPDT • 8-pins
- Pin Type Terminals – Series 250
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient temp. operating: -10°C to +50°C
- Size: 1.4" L x 1.4" W x 2.7" H


**Series 250**

Part No.	Mfr. Cross Ref. No.	P&B Cross Ref.	Coil Voltage	1	10
139766EE	BTA1-2C-12VDC	R02-11D10-12	12VDC	\$9.49	\$8.55
139740EE	BTA1-2C-120VAC	R02-11A10-120	120VAC	9.95	8.79

**Series 250 Sockets**

Part No.	Voltage	Current	Pins	Size	1	10
141145EE	250VAC	20 amps	8	2.0" L x 1.6" W x 0.8" H	\$3.99	\$3.65

## Reed Type Relay

- Manufacturer: Bestar
- Contact voltage: 120VAC/60VDC
- Contact current: 0.1A
- Terminal type: PCB solder
- Dielectric strength: 1500VDC (between contact and coil)
- 4-pin • Operating temperature: -30°C to +60°C

Part No.	Mfr. Cross Ref. No.	Dimensions (L x W x H)	Contact Form	Coil Voltage	Coil	1	10
111448EE	RC108T	1.0" x .37" x .38"	SPST-NO	12VDC	1050Ω	\$.35	\$.32

## KHAU Type Relay

- Insulation resistance: 1,500MΩ @ 500VDC • 4PDT • 14-pin
- Life: (mechanical) 10,000,000 operations; (electrical) 100,000 operations min. at rated load • Contact rating: 220VAC/24VDC @ 5A

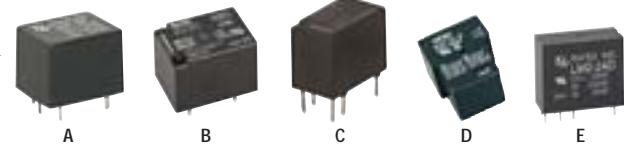
Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	
183011EE	GM4PDT12DF	—NEW	KHAU-17D12-12	12VDC	\$6.95	\$6.38

## Small High-Current PC Mount Relays

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Mechanical life expectancy: 10 million operations
- Electrical life expectancy: 100,000 operations at rated loads
- Dielectric strength: 1500Vrms (between contact and coil)

144186EE: For use with universal relay card (P/N 128910EE, pg 93)

**Expanded Selection**

**Fig. 1**

**Fig. 2**

**Fig. 3**

**Fig. 4**

**Fig. 5**

**Fig. 6**

Part No.	Mfr. Cross Ref. No.	Manufacturer	Potter & Brumfield Cross Reference	Fig.	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	Pricing	
												1	10
134494EE	FKD130PSDC5V	Rayex —NEW	T90S5D12-5	4D	SPDT	5VDC	27	240VAC/28VDC	20A	6	1.3 x 1.1 x .80	\$2.49	\$2.15
174449EE	LU-5	Rayex —NEW	T81H5D215	5A	SPDT	5VDC	125	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.79	1.66
187240EE	G5V1-DC5	Omron	—	3C	SPDT	5VDC	166.7	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	2.05	1.79
172937EE	JS1-12V	Nais (Aromat)	T72M5D121-12	2B	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.09	.99
144186EE	JZC-22F	Velleman	VR15M121C	1A	SPDT	12VDC	337	120VAC/28VDC	15A	5	.80 x .64 x .80	3.79	3.39
174431EE	LEG12F	Rayex —NEW	T7CS5D12	1A	SPDT	12VDC	400	120VAC/24VDC	15A	5	.76 x .62 x .60	1.49	1.29
174377EE	LM2-12D	Rayex —NEW	RKA5DZ12	6E	DPDT	12VDC	270	250VAC/30VDC	5A	8	1.2 x .48 x 1.0	2.49	2.25

## W58 Series Thermal Circuit Breakers

- Max. operating voltage: 50VDC; 250VAC 50/60Hz
- Interrupt capacity: 2,000A @ 50VDC; 1,000A @ 250VAC 50/60Hz
- Endurance cycling: >1,000 operations @ 200% of rating
- Dielectric strength: >1,500Vrms
- Push button to reset breaker

Part No.	Product No.	Amp	Resistance	1	10
282562EE	W58-XB1A4A-10	10	0.014	\$2.99	\$2.95
282571EE	W58-XB1A4A-15	15	0.010	3.19	3.03
282589EE	W58-XB1A4A-20	20	0.006	3.19	3.03
282597EE	W58-XB1A4A-30	30	—	3.19	3.03



**Jameco is committed to serving you. Drop us a line at: [AtHome@Jameco.com](mailto:AtHome@Jameco.com)**

We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need.



## Rayex General Purpose Relays

### Potter and Brumfield Type LB2 Series



- DPDT • 8-pins
- Contact rating: 240VAC/30VDC @ 12A
- Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations min. at rated load

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10
175564EE	LB2-24DS	K10-11D15-24	12VDC	\$5.99	\$5.49
175572EE	LB2-110AS	K10-11A15-120	110VAC	6.25	5.49

### Rayex LB2 Socket



- DIN rail snap socket for LB2 relays

Part no.	Product No.	P & B Cross Ref.	Pins	1	10
175530EE	PTF08AA	27E895	8	\$5.95	\$5.39

### Rayex LB4 Series



- Insulation resistance: 1,500MΩ @ 500VDC
- Mechanical life: 10,000,000 operations • 4PDT
- Contact rating: 240VAC/30VDC @ 5A • 14-pin
- Electrical life: 100,000 operations min. at rated load

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10
291506EE	LB4H-12DS	KHAU-17D12-12	12VDC	\$4.45	\$4.33
175601EE	LB4H-24DS	KHAU-17D12-24	24VDC	5.09	4.93

### Rayex LB4 Socket



- DIN rail snap socket for LB4H relays

Part No.	Product No.	P & B Cross Ref.	Pins	1	10
175556EE	PYF-14A-A	27E894	14	\$3.95	\$3.49

**Find More of What You're Looking For at**

**[www.Jameco.com](http://www.Jameco.com)**

**DC/AC and DC/DC Solid State Relays**

- Screw terminal with hardware
- Photo isolation
- Metal mounting base
- Manufacturer may vary



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

Part No.	Product No.	Mfr.	Control Voltage	Type	Contact Style	Contact Voltage	Contact Current	Pins	Fig.	Terminal Type	Agency Approval	Size L" x W" x H"	Pricing
Solid State Relays DC/AC Type													1 10
162341EE	ESR51024-010 <sup>†</sup>	Excel	3-32VDC	DC/AC	SPST	240VAC	10A	4	3	Screw Terminal	UL	1.7 x 1.1 x 2.3	\$15.95
162368EE	ESR51024-025 <sup>†</sup>	Excel	3-32VDC	DC/AC	SPST	240VAC	25A	4	3	Screw Terminal	UL	1.7 x 1.1 x 2.3	\$21.95
162405EE	ESR51024-040 <sup>†</sup>	Excel	3-32VDC	DC/AC	SPST	240VAC	40A	4	3	Screw Terminal	UL	1.7 x 1.1 x 2.3	\$22.99
105081EE	615-8500 <sup>‡</sup>	Teledyne	3-32VDC	DC/AC	SPST	250VAC	10A	4	2	Screw Terminal	UL	1.7 x 1.1 x 2.3	\$15.99
127790EE	D2W20F <sup>— NEW</sup>	Crydom	3-32VDC	DC/AC	SPST	280VAC	2A	4	6	Solder Lead	UL/CSA	1.7 x 0.4 x 1.3	\$7.19
176698EE	KB20C06A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	6A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	\$9.99
164988EE	S101S02	Sharp	1.2VDC@20mA	DC/AC	—	125VAC	1.5A	4	5	Solder Lead	UL/CSA	0.9 x 1.6 x .63	\$3.95
164996EE	S202TA1	Sharp	1.2VDC@20mA	DC/AC	—	200VAC	2.0A	4	5	Solder Lead	UL/CSA	0.9 x 1.6 x .63	\$4.95
Solid State Relays DC/DC Type													10
172591EE	KF0602D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	\$9.95
175222EE	KF0604D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	4A	4	1	Solder Lead	—	1.5 x 0.3 x 0.9	\$11.95
176647EE	KG1005D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	5A	4	4	Screw Terminal	—	2.3 x 1.7 x 0.9	\$26.99
176655EE	KG1010D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	10A	4	4	Screw Terminal	—	2.3 x 1.7 x 0.9	\$29.99
Solid State Relays DC/DC Type													10

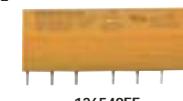
† Zero crossing    ‡ Pull = Extra Savings

**DIP Relays**

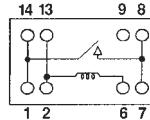
- Logic control levels
- Moisture resistant
- Compatible with IC sockets
- Long life with reliable operation
- Compact design/construction
- Excellent for PCB applications



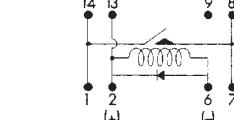
106462EE



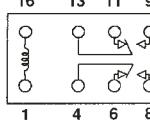
136549EE



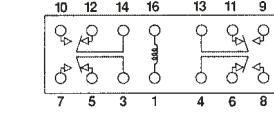
Schematic 1



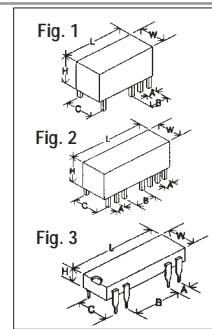
Schematic 2



Schematic 3



Schematic 4



Part Number	Product Number	Manufacturer	Contact Schem.	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Jameco Socket	Fig.	Size L x W x H (in.)	Leads A x B x C (in.)	Pricing
												1	10	
106462EE	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161EE	3	.78 x .25 x .20	.10 x .40 x .30	\$2.15
138430EE	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161EE	3	.77 x .30 x .22	.10 x .40 x .30	\$2.29
106471EE	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161EE	3	.78 x .25 x .20	.10 x .40 x .30	\$2.29
173913EE	AZ831-2C-5DSE	American Zettler	3	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401EE	1	.79 x .38 x .44	.18 x .28 x .29	\$2.35
139977EE	RSB55	Shin Mei	3	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372EE	1	.79 x .39 x .37	.20 x .40 x .30	\$2.49
99311EE	DS2Y-S-DC12V*	Aromat (NAIS)	3	DPDT	12VDC	720	110VAC/30VDC	.3A/1A	8	37372EE	1	.79 x .40 x .43	.20 x .40 x .30	\$2.49
99901EE	LX200D00	Clare	3	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372EE	1	.79 x .40 x .30	.20 x .40 x .30	\$6.95
99320EE	LM12E00*	NEC	3	DPDT	24VDC	1110	125VAC/100VDC	2A	8	37372EE	1	.79 x .40 x .43	.20 x .40 x .30	\$2.95
136549EE	DS4E-M-DC5V*	Aromat	4	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299EE	2	1.40 x .40 x .36	.20 x .30 x .30	\$5.49
176313EE	DS4E-M-DC12V	Aromat	4	4PDT	12VDC	360	125VAC/30VDC	.6A/2A	14	171431EE	2	1.40 x .40 x .36	.20 x .30 x .30	\$6.95
T9A Series Relay														

\* Manufacturer and Manufacturer Cross Ref. number may vary

**Potter & Brumfield Type Plastic Enclosed Construction Relays**

- Dielectric strength: 500VDC (between contact & coil)
- Operating temperature: -35°C to +85°C
- Contact current: 40A
- Coil voltage: 12VDC
- Normally open (NO), normally closed (NC)
- Terminal type: quick connect
- Dimensions: 1.1" L x 1.1" W x 1.0" H

**VF4 Type Relays**

Part No.	Mfr. Cross Ref. No.	P&B Cross Ref.	Contact Form	Coil Ohms	Schematic	Contact Voltage	Pins	1	10
171459EE	LD1A-12F <sup>— NEW</sup>	VF481F11S01	SPST-NO	78	2	14VDC	4	\$1.89	\$1.75
148582EE	LD12F	VF485F11	SPDT	78	1	12VDC	5	2.49	2.25
171432EE	961A-1C-12DM	VF481F11	SPDT	90	1	12VDC	5	2.99	2.69

**VF4 Type Socket with Coil Diode**

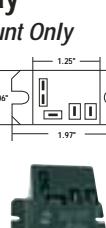
- For use with P/N 148582EE (above)
- 12 AWG: 2 black and 1 blue wire
- 18 AWG: 1 black and 1 red wire

- Contact voltage/current: 12V/20A
- 7.5" wire
- Diode coil suppression

Part No.	Mfr. Cross Ref. No.	Description	1	10
170624EE	RSD03	Relay socket with coil diode (for P/N 148582EE, above)	\$2.35	\$2.15

**Low Cost PC Board or Panel Mount Only**

- Contact form: SPDT
- 5-pin
- Coil: 155Ω
- Contact current: 20A/10A
- Coil voltage: 12VDC
- Contact volt.: 240VAC/28VDC
- Terminal type: 0.1" disconnect (2); 0.25" disconnect (3)
- Dimensions (LxWxH): 2.0" x 1.6" x 1.8"

**More @ [www.Jameco.com](http://www.Jameco.com)****Our complete selection of Relays and Relay Sockets is at [www.Jameco.com](http://www.Jameco.com).**



## Terminal Blocks

For detailed specifications, please see our website at [www.Jameco.com](http://www.Jameco.com)



Fig. 1 (99397EE)

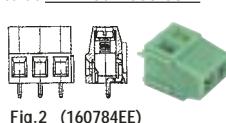


Fig. 2 (160784EE)

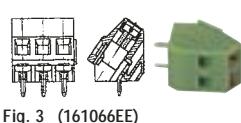


Fig. 3 (161066EE)



Fig. 4 (189675EE)

Part No.	Mfg.	Product No.	Fig.	Term.	Terminal Spacing	1	10
99426EE	Dinkle	DT128/2	1	2	.197"/5mm	\$.72	\$.55
99397EE	Dinkle	DT128V3P	1	3	.197"/5mm	.99	.89
160784EE	Dinkle	EK500V-02P	2	2	.197"/5mm	.65	.55
161066EE	Dinkle	EK500A-02P	3	2	.197"/5mm	.75	.65
161058EE	Dinkle	EK500A-03P	3	3	.197"/5mm	.95	.85
189675EE	OST	EDC500/2DS	4	2	.197"/5mm	.79	.71
189667EE	OST	EDC500/3DS	4	3	.197"/5mm	.89	.80
152346EE	OST	EDC120/2DS	5	2	.200"/5.08mm	.65	.55
152354EE	OST	EDC120/3DS	5	3	.200"/5.08mm	.47	.44

## 0.098"-Pitch AT Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC
- Current rating: 7A AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min.
- Withstanding voltage: 1500V/min.

78300EE: AMP60G male 6-pin PCB mount connector

- Material of post: tin-plated brass
- Diameter of post: .09"
- 78326EE: AMP50G female 6-pin housing connector
- Material: nylon
- 78318EE: AMP501T terminal pin
- Material: tin-plated brass



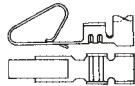
\* Prepackaged: order in increments of 10

Part No.	Description	L	W	H	Dia	Use With	1	10
78300EE	6-pin male connector	.93"	.37"	.57"	—	—	\$.45	\$.39
78326EE	6-pin housing connector	.94"	.25"	.74"	—	78300EE	.35	.31
78318EE	Power terminal pin, female	.69"	—	—	.09"	78326EE	*	.11

## .156" (3.9mm) Center Crimp Pin

- Use with .156" housings (below)
- Material: brass/tin plated
- Prepackaged: order in increments of 10 or 100

Part No.	Mfr. Cross Ref.	Pin Wire Gauge	10	100
78318EE	JS-5001-T	18-24 AWG	\$.11	\$.08



## .156" (3.9mm) Center Housing Connectors

- Common to many power supplies carried by Jameco. Some power supplies (pgs 31-34) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318EE, above



104731EE

\* Prepackaged: order in increments of 10

Part No.	Mfr. Cross Ref. No.	Pins	1	10
104715EE	LCH4	4	*	\$.22
104731EE	LCH6	6	.33	.30

## 171-Piece Solderless Terminal Kit

- Clear, hinged plastic box
- Use crimping tool P/N 72995EE, pg 60



170 Terminals and Connectors!

NEW

Part No.	Description	1	10
10989EE	Terminal kit (170 terminals and connectors) — NEW	\$8.95	\$7.95

COLOR CODE LEGEND...

**NEW SALE REFURBISHED CLOSEOUT**

**NEW SALE REFURBISHED CLOSEOUT**

Order 24/7 Toll Free 1-800-455-6119

## European Terminal Blocks

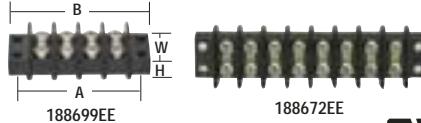
- Number of poles: 12
- 1.2mm raised base
- Working temperature: 230°F (110°C)
- Material: Polyamide 66 (nylon 66), UL94V2, natural
- Voltage: 600V
- Terminal insert: brass metal alloy, nickel plated
- Wire protector: stainless steel spring
- Screws: zinc plated, yellow chromed



215010EE

Part No.	Prod. No.	Amps	AWG	1	10
215010EE	PA8H	20A	12-22	\$1.79	\$1.59
215028EE	PA10H	30A	10-22	1.89	1.69
215036EE	PA12H	35A	10-22	2.59	2.29

## KULKA® 601 GP Series Double Row Terminal Blocks



188699EE

188672EE



- Base: general purpose phenolic; 150°C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated
- Width (W): 1.12"
- .437" (11 mm) centers
- Height (H): .50"
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved



Part Number	Product Number	Poles	Dimensions	A"	B"	1	10
188699EE	601GP4	4	2.19	2.50	....	\$1.69	\$1.49
188672EE	601GP8	8	3.94	4.25	....	2.95	2.75
188701EE	601GP12	12	5.69	6.00	....	5.49	4.95

## Metric Double Row Terminal Blocks

For detailed specs, please see [www.Jameco.com](http://www.Jameco.com)

### 10A @ 600V

- Screw size: M3.0
- Width (W): 19.5mm
- Height (H): 11.9mm



Part Number	Product Number	Poles	Dimensions	A"	B"	1	10
208856EE	GGE-10-4P	4	47.5	55	....	\$ .99	\$ .89
208872EE	GGE-10-8P	8	95	102.5	....	1.69	1.59
208811EE	GGE-10-12P	12	123.5	131	....	2.79	2.49

### 20A @ 600V

- Screw size: M3.5

(W): 22.0mm (H): 13.2mm



Part Number	Product Number	Poles	Dimensions	A"	B"	1	10
207538EE	GGE-20-4P	4	54.5	63.5	....	\$1.39	\$1.25
207554EE	GGE-20-8P	8	98.1	107.1	....	2.59	2.35
207571EE	GGE-20-12P	12	141.7	150.7	....	3.59	3.19

## .100" IDC DIP Flat Cable Plugs

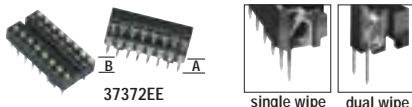
- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing
- Plastic with gold-plated contacts
- Uses 28 AWG flat ribbon cable, pg 33
- Current rating: 1 amp



Mfr. Cross Ref. No.	Width	Contacts	1	10
42657EE	609-14	0.3"	14	\$.49
42673EE	609-16	0.3"	16	.55
104096EE	609-20	0.3"	20	.69
42711EE	609-40	0.6"	40	1.15

**JAMECO®**

## Single & Dual Wipe Solder Tail Low-Profile Sockets



- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstand voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Thru-hole lead length: .140" (A)
- Body height: .188" (B)
- Prepackaged: order in increments of 10 or 100

### Single Wipe

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100
51570EE	8LP	8	0.3	..... \$0.63	\$0.54
37161EE	14LP	14	0.3	..... .081	.063
37372EE	16LP	16	0.3	..... .09	.081
38113EE	18LP	18	0.3	..... .099	.084
38607EE	20LP	20	0.3	..... .108	.09
<b>40301EE</b>	<b>28LP</b> — NEW	<b>28</b>	<b>0.6</b>	<b>..... .171</b>	<b>.117</b>
41110EE	40LP	40	0.6	..... .171	.153

### Dual Wipe

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100
112205EE	8LPD	8	0.3	..... \$.09	\$.08
112213EE	14LPD	14	0.3	..... .10	.075
112221EE	16LPD	16	0.3	..... .13	.115
112230EE	18LPD	18	0.3	..... .16	.14
112248EE	20LPD	20	0.3	..... .153	.13
<b>112264EE</b>	<b>24LPD</b>	<b>24</b>	<b>0.6</b>	<b>..... .158</b>	<b>.136</b>
112299EE	28SLPD	28	0.3	..... .21	.19
112272EE	28LPD	28	0.6	..... .189	.161
112301EE	32LPD	32	0.6	..... .22	.187
112310EE	40LPD	40	0.6	..... .26	.23

## ARIES SOIC/SOJ to DIP Adapters

A cost effective means of upgrading to SOJ or SOIC without changing your PCB layout.

- Board material: 0.062" thick FR-4 with 1 oz. copper traces on both sides
- Brass alloy pins 1/2 hard with 200μ" (5.08μm) min. tin plating
- Operating temp.: 221°F (105°C)
- Suggested PCB hole size: 0.028" (0.71mm) Dia.



### 35000X Series

Part No.	Product No.	Pins	L" x W"	1	10
291207EE	08-35000-10	8	.400 x .460	..... \$6.59	\$5.59
291291EE	14-35000-10	14	.700 x .450	..... 6.55	5.55
291514EE	16-35000-10	16	.800 x .450	..... 6.55	5.59
291864EE	18-35000-10	18	.900 x .450	..... 6.55	5.55
291910EE	20-35000-10	20	1.0 x .450	..... 6.55	5.55
291979EE	24-35000-10	24	1.2 x .450	..... 4.45	3.85

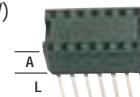
### 65000X Series

Part No.	Product No.	Pins	L" x W"	1	10
295144EE	28-65000-10	28	1.4 x .700	..... \$10.15	\$8.71

More adapters at [www.Jameco.com](http://www.Jameco.com)

## Level 2 & 3 Wire Wrap Sockets

- Contact plating/leads: gold (WW) or tin (TWW): dual wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstand voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .438" (L2); .638" (L3)
- Body height: .300" (A)



### Gold (WW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10
37479EE	16WW2	16	0.3	..... \$1.75	\$1.59
38674EE	20WW2	20	0.3	..... 2.25	1.99
37233EE	28WW2	28	0.6	..... 1.49	1.35
40352EE	28WW2	28	0.6	..... 2.19	1.99
41187EE	40WW2	40	0.6	..... 3.15	2.80

### Tin (TWW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10
196841EE	14TWW3	14	0.3	..... \$.82	\$.74
37217EE	14TWW2	14	0.3	..... 1.15	1.03
37436EE	16TWW2	16	0.3	..... .99	.89
75379EE	20TWW2	20	0.3	..... 1.69	1.52
75424EE	28TWW2	28	0.6	..... 1.89	1.63
41179EE	40TWW2	40	0.6	..... 2.49	2.15

## Machine Tooled Solder Tail Low Profile Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstand voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .177" (A) • Body height: .117" (B)



Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10
51625EE	8MLP	8	0.3	..... \$.25	\$.22
37196EE	14MLP	14	0.3	..... .42	.38
37401EE	16MLP	16	0.3	..... .47	.43
65584EE	18MLP	18	0.3	..... .55	.49
38623EE	20MLP	20	0.3	..... .59	.55
39351EE	24MLP	24	0.6	..... .65	.59
11441EE	28SMLP	28	0.3	..... .85	.75
40328EE	28MLP	28	0.6	..... .83	.75
105380EE	32MLP	32	0.6	..... .95	.85
41136EE	40MLP	40	0.6	..... 1.19	1.05
42059EE	48MLP	48	0.6	..... 1.29	1.18
200707EE	64MLP	64	0.9	..... 1.35	1.25

## We'll Beat Their Prices by 10%!

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost. Just call us. It's that simple.

## Level 3 Machine Tooled Wire Wrap Sockets



- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Contact resistance: less than 5mΩ
- Dielectric withstand voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Sleeve material: brass
- Thru-hole lead length: .515" (L3)
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10
94481EE	18MSWW3	18	0.3	..... 1.09	.93
38631EE	20MSWW3	20	0.3	..... 1.33	1.14
94490EE	24MSWW3	24	0.6	..... 1.35	1.15
40336EE	28MSWW3	28	0.6	..... 1.69	1.43
94502EE	40MSWW3	40	0.6	..... 2.65	2.28

## Machine Contact Single-In-Line Female Sockets

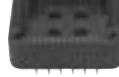


- Machine toolled
- Solder tail and wire wrap

Part No.	Description	1	10
102200EE	Single x 10-pin	..... \$.25	\$.22
78641EE	Single x 30-pin	..... .89	.80
175919EE	Single x 36-pin	..... 1.19	1.09
101282EE	Single x 20-pin WW2†	..... 1.49	1.35
104053EE	Single x 30-pin WW3*	..... 1.95	1.75

† Lead length: .435"(2) \* Lead length: .575"(3)

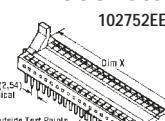
## PLCC Solder Tail Sockets



- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic lead chip (0.05" centers)
- Thru-hole lead length: .125" • Body height: .375"

Part No.	Mfr. Cross Ref. No.	Pins	1	10
71811EE	G1P432	32	..... \$.55	\$.48
71618EE	G1P444	44	..... 1.15	.99
71968EE	G1P468	68	..... 1.15	.99

## ARIES Low Profile ZIF Sockets



A low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position measures just .554" (14.07mm).

- Strong rigid cast metal cam provides uniform action over entire contact area

Part No.	Aries No.	Pins	Dim X	1	10
102744EE	28-526	28	1.64"	..... \$5.49	\$4.99
102752EE	40-526	40	2.24"	..... 6.95	6.39

## ARIES Universal ZIF Sockets



- Solder directly to PCB or plug directly into IC socket
- Screw mounting holes for reliable operation
- Accepts .300" to .600" IC centers x .1" spacing

Part No.	Aries No.	Pins	1	10
103991EE	24-6554-10	24	..... \$7.49	\$6.79
104002EE	28-6554-10	28	..... 8.45	7.39
104011EE	32-6554-10	32	..... 9.95	8.49
104029EE	40-6554-10	40	..... 11.25	9.80

## 0.2"-Pitch Power Connectors & Pins

### Connector & Housing Specifications:

- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C
- Crimp Pin Specifications:**
- Material: tin plated brass • Current rating: 1.5 amps
- Wire size range: 18-24 AWG • Use tool P/N 99442EE, pg 60

### For 5.25" Disk Drives and Power Supplies

#### 42075EE & 42067EE

##### Connector Housings:

- Keyed mating connectors
- External key bar indicates pin 1
- See web for extraction tools, P/N 131887EE & 131879EE
- Prepackaged: order in increments of 10 or 100



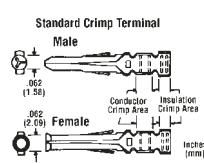
Part No.	Description	10	100
109145EE	4-pin M vert. PCB mtg	\$.59	\$.53
117567EE	4-pin M PCB mount, horiz. edge mount	.69	.63
42075EE	4-pin M housing	.12	.11
42067EE	4-pin F housing	.20	.15
42729EE	M crimp pin for 42075EE	.10	.07
42649EE	F crimp pin for 42067EE	.10	.07

## .062" Power Connector Kit

Kit contains mating sets of housings and pins.

- Voltage: 250VAC • Current: 5A
- Temperature range: -40°C to +105°C

**Includes:** 3 ea. 2-pin plugs and 2-pin receptacles, 8 ea. male contacts and 8 ea. female contacts.



Part No.	Product No.	Description	1	10
142113EE	1625-2	Kit	\$5.69	\$5.15

## .100" and 2mm Shorting Blocks

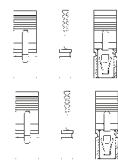
- Mates to .025" square posts on .100" centers
- Shorting socket jumper to address or code strip line plugs
- Mate with male headers
- Pin material: phosphor bronze
- Prepackaged: order in increments of 10 or 100



Part No.	Description	Color	10	100
22023EE	Top open	Black	\$.12	\$.09
112416EE	Top open — NEW	Red	.12	.09
19140EE	Top closed	Black	.12	.09
112441EE	Top closed	Blue	.12	.09

## .100" Shorting Block w/ Handle

- Mates w/ .100" male headers, above
- Ratings: • Current: 3A



- Accessible test point in handle
- Contact resistance: 20mΩ max.

### Material:

- Plastic: PBT, glass filled
- Contact: phosphor bronze
- Prepackaged: order in increments of 10 or 100

Part No.	Description	10	100
152670EE	.100" shorting block	\$.19	\$.15

## Around-the-Clock Ordering

You can call us at 1-800-455-6119  
24x7x365 to place your order. Or visit us  
on the web at [www.Jameco.com](http://www.Jameco.com).

COLOR CODE LEGEND...

**NEW SALE REFURBISHED CLOSEOUT**

## .100" IDC Socket Connectors

### Double Row Polarized



- Mates with 2 rows of .025" Sq. or Dia. posts on patterns of .100" centers
- Industry standard IDC socket (plastic)
- Temp. rating: -55°C to +105°C • Current rating: 1A
- Use P/N 73251EE, pg 60: insulation displacement connection crimp for these connectors

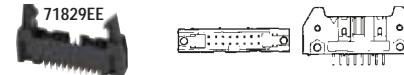
Part No.	Mfr. Cross Ref. No.	Contacts	1	10
32491EE	S10	10	\$.29	\$.25
119466EE	S16	16	.35	.29
<b>32521EE</b>	<b>S20 — NEW</b>	26	.39	.32
32563EE	S26	26	.45	.35
32643EE	S34	34	.49	.39
<b>100386EE</b>	<b>IDC440* — NEW</b>	44s	.99	.89
32678EE	S40	40	.55	.45
32707EE	S50	50	.65	.55

\* 2mm pin spacing

### Double Row Non-Polarized

Part No.	Mfr. Cross Ref. No.	Contacts	1	10
138376EE	SN10 — NEW	10	\$.35	\$.32

## .100" (2.5mm) Straight Male Headers with Standard Latch



- 0.1" contact center
- Double row
- Mount vertical
- Keying slot
- Use w/IDC socket connectors, above

Part No.	Description	1	10
117663EE	10-pin	\$1.29	\$1.16
71829EE	20-pin	.139	.125
71933EE	26-pin	.149	.125
72215EE	50-pin	.185	.165

## .100" Right Angle Male Headers



### Single Row

Part No.	Mfr. Cross Ref. No.	Contacts	1	10
153728EE	RMH08	8	\$.45	\$.40
103270EE	RMH36	36	.75	.64

### Double Row

Part No.	Mfr. Cross Ref. No.	Contacts	1	10
203916EE	923806DR	6	\$.49	\$.44
203932EE	923810DR	10	.59	.53
53575EE	923820DR	20	.65	.59
53604EE	923840DR	40	.85	.75
53612EE	923850DR	50	.85	.75
103413EE	923872DR	72	1.15	.99
139563EE	923880DR	80	1.35	1.19

## .100" (2.5mm) Female Header Receptacles

- Gold plated contacts • 0.1" contact center

### Right Angle Mount (Side Entry)

Part No.	Type	Contacts	1	10
71159EE	Double row — NEW	8	\$1.25	\$1.10

### Vertical Mount (Top Entry)

Part No.	Type	Contacts	1	10
70754EE	Single row	8	\$.59	\$.53

Part No.	Description	10	100
200782EE	Single row	12	.79
70720EE	Double row	16	.89
70826EE	Double row	20	.99
105056EE	Double row	30	1.09
163862EE	Double row	34	1.05
111704EE	Double (Tin)	40	1.29

**For access to over 14,000 products visit our website at [www.Jameco.com](http://www.Jameco.com)**

## .100" Straight Male Headers (Gold)



109575EE

109567EE

- Snap apart to fit your application
- Contact area: gold
- Contact material: phosphor bronze
- Current rating: 1 amp • Insulation: glass filled polyester
- Temp. range: -55°C to +120°C
- Solder to PC boards for instant plug-in access
- .025" square posts on a .100" x .100" matrix
- Use w/ crimp connector housing, pg 29

\* Prepackaged: order in increments of 10

### Single Row

Part No.	Mfr. Cross Ref. No.	Contacts	1	10
108337EE	SMH02	2	.*	\$.16
109575EE	SMH03	3	.*	.17
117559EE	SMH04	4	.*	.17
153699EE	SMH06	6	.*	.17
153701EE	SMH08	8	.*	.20
103392EE	SMH10	10	.*	.18
103376EE	SMH17	17	.*	.16
103368EE	SMH20	20	.*	.25
202825EE	SMH22	22	.*	.25
103350EE	SMH25	25	.*	.25
103341EE	SMH30	30	.35	.31
160881EE	SMH40	40	.49	.44

### Double Row

Part No.	Mfr. Cross Ref. No.	Contacts	1	10
115027EE	923804DS	4	.*	\$.10
115035EE	923806DS	6	.*	.18
109516EE	923808DS	8	.*	.18
67820EE	923810DS	10	.*	.18
<b>118455EE</b>	<b>923814DS — NEW</b>	14	.45	.40
109567EE	923816DS	16	.55	.49
<b>53479EE</b>	<b>923862DS — NEW</b>	20	.59	.55
203844EE	923824DS	24	.70	.65
53495EE	923863DS	26	.63	.57
53532EE	923865DS	40	.59	.53
53559EE	923866DS	50	.60	.55
103405EE	923872DS	72	.85	.75
117196EE	923880DS	80	.90	.80

## .100" Low-Profile Straight Male Shrouded Headers

- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Material: glass filled polyester, gray, UL94V-0
- Use with IDC socket connectors, above

Part No.	Description	1	10
67811EE	10-pin male shrouded header	\$.39	\$.35
68179EE	16-pin male shrouded header	.44	.40
<b>68291EE</b>	<b>20-pin male shrouded header NEW</b>	.49	.47
68371EE	26-pin male shrouded header	.54	.42
<b>68582EE</b>	<b>34-pin male shrouded header NEW</b>	.79	.65
181104EE	40-pin male shrouded header	.75	.60

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

## D-Subminiature Connectors

## Solder-Cup Connectors



15114EE Front



15114EE Back

## Crimp-Type Connectors and Pins



38771EE

19094EE



43369EE

- Compatible with 24 AWG communications and 22 AWG solid cable, pg 33
- Shell: tin plated metal

Part No.	Contacts	Gender	1	10
15747EE	9	M	\$.56	\$.44
15771EE	9	F	.59	.49
15077EE	15HD*	M	.69	.59
16482EE	15HD*	F	.79	.69
15034EE	15	M	.55	.49
15051EE	15	F	.59	.49
15114EE	25	M	.99	.89
15157EE	25	F	.89	.80
15472EE	37	M	.99	.85
15499EE	37	F	1.19	1.05

\*High Density

## Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temp.: -65°F to +250°F
- Shell: tin plated metal

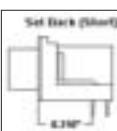


Part No.	Mfr. Cross Ref. No.	Contacts	Gender	1	10
111691EE	DB9PPCB	9	M	\$.55	\$.45
15780EE	DB9SPCB	9	F	.55	.45
176760EE	DA15PPCB	15	M	.49	.42
176751EE	DA15SPCB	15	F	.49	.42
15122EE	DB25PPCB	25	M	.65	.59
15165EE	DB25SPCB	25	F	.74	.67
180021EE	DC37SPCB	37	F	.85	.72

## Right Angle PC Mount Connectors

## 0.318" Set Back

- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: tin plated metal
- Current rating: 1A

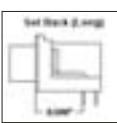


Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10
104942EE	DB9P318	9	M	\$.55	\$.50
104951EE	DB9S318	9	F	.60	.55
71124EE	DA15P318	15	M	.69	.59
77956EE	DA15S318	15	F	.79	.69
168743EE	HDDB15S318*	15	M	.49	.42
71466EE	HDDB15S318*	15	F	.59	.53
15149EE	DB25P318	25	M	.79	.65
15181EE	DB25S318	25	F	.89	.79
71706EE	DC37P318	37	M	.99	.89
78182EE	DC37S318	37	F	1.15	.95

\*High Density

## 0.590" Set Back

- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A
- Shell: metal
- Long style



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
104969EE	DB9P590	9	M	\$.99	\$.83	\$.72
104977EE	DB9S590	9	F	.89	.79	.75
105005EE	DB25P590	25	M	.99	.89	.79
105013EE	DB25S590	25	F	1.25	1.12	.99

Find more @ [www.Jameco.com](http://www.Jameco.com)

## DIN Female Sockets



- Metal body
- Panel mount with solder lugs

Part No.	Mfr. Cross Ref. No.	# of pins	1	10
15843EE	DINJ5	5	\$.129	\$.115
15851EE	DINJ6	6	1.39	1.25
15860EE	DINJ8	8	1.49	1.35

## Right Angle DIN Female Sockets



- Set back: 0.5"
- PC mount contacts

140791EE/119474EE:

Plastic/metal body

29399EE: Plastic body

Part No.	Mfr. Cross Ref. No.	# of pins	1	10
140791EE	MDR4S	4 (mini)	\$.62	\$.56
119474EE	MDR6S	6 (mini)	.75	.68
207722EE	MDS8100	8 (mini)	.89	.80
29399EE	RD5	5	.59	.53

## DIN and Mini DIN

## Plugs and Receptacles



- Solder barrels including strain relief
- See page 33 for cable

Part No.	Type	Pins	1	10
142261EE	Mini plug	6	\$.89	\$.77
111878EE	Mini plug	8	.99	.89
177236EE	Mini receptacle	8	1.09	.93
15878EE	DIN plug	5	.52	.47
15886EE	DIN plug	6	.59	.50
15894EE	DIN plug	8	.65	.56

## D-Subminiature Connector Hoods



- Use with D-sub solder cup and housing style connectors

Part No.	Mfr. Cross Ref. No.	Hood	Conn.	1	10
15721EE	DB9H	Plastic	9-pin	\$.49	\$.45
25620EE	MDB9H	Metal/plastic	9-pin	.59	.49
147740EE	MDB9H	Metal/plastic	9-pin	1.45	1.29
15018EE	DA15H	Plastic	15-pin	.49	.45
25566EE	MDA15H	Metal/plastic	15-pin	.56	.44
15085EE	DB25H	Plastic	25-pin	.45	.39
25603EE	MDB25H	Metal/plastic	25-pin	.59	.49
15106EE	MDB25H	Metal/plastic	25-pin	1.39	1.19
15456EE	DC37H	Plastic	37-pin	.59	.55
25611EE	MDC37H	Metal/plastic	37-pin	.75	.69

## 25-Pin Dual Plastic Hood



Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.



Part No.	Description	1	10
34091EE	25-pin, plastic dual	\$.95	\$.85

## Our Low Price Guarantee

We search around the world to identify the sources for the lowest prices for our high-quality products. In fact, we have a team of people dedicated to making sure we have the lowest prices available.

## Modular Telephone Cable – 28 AWG

- Color coded conductors
- Flat modular cable
- PVC jacket
- Gray
- 7 x 43 stranded



Part No.	Cross Ref. No.	Conductors	100 ft.	1000 ft.
103430EE	MTC4	4	\$3.49	\$30.00
103448EE	MTC6	6	7.49	50.00

## 2-Conductor Stranded Power/Speaker Cable – 24 AWG

- Black wire with white polarity stripe
- Temp. rating: 20°C to 60°C
- Stranded copper wire (7 x 32)
- Operating voltage: 300V

Part No.	Cross Ref. No.	Wt. (lbs.)	100 ft.	Part No.	Cross Ref. No.	Wt. (lbs.)	1000 ft.
100280EE	224BK/C	0.8	\$5.59	100298EE	224BK/K	7.8	\$39.95

## RG Type Bulk Coaxial Cable

RG58/U & RG58A/U (50Ω): Nom. cap.: 27pF/ft.; center resist.: 10.4Ω/kft. @ 77°F

RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/kft. @ 77°F

RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/kft. @ 77°F

- Prepackaged and priced in increments of 100' or 1000'

Part No.	Cross Ref. No.	Description	100 ft.	1000 ft.
102226EE	RG58/U	For ethernet, oscilloscopes (solid 20AWG)	\$11.99	\$90.00
116898EE	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	18.99	150.00
102218EE	RG59/U	For CATV & video patch cords (solid 22AWG)	12.99	110.00
112037EE	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	18.99	169.00

## Twisted Pair Cable – 24 AWG

- PVC insulation
- Stranded tinned wire (7 x 32)
- Wt.: 100' (0.5 lbs.)
- Use for hook up wire
- Reduced EMI
- 80°C

Part No.	Cross Ref. No.	Color	100 ft.
105911EE	224GW/C	Green/white	\$5.49
173147EE	224RW/C	Red/white	5.49
173163EE	224BW/C	Black/white	5.49

## Gray Flat Ribbon Cable – 28 AWG

103481EE

- Single edge red stripe for pin 1 orientation
- Insulation: polyvinyl chloride (PVC)
- 28 AWG (7 x 36)
- Center spacing: 0.05"
- Voltage rating: 300V
- Stranded copper wire
- Temp. rating: -20°C to +80°C
- Prepackaged and priced in increments of 10' or 25'

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.	Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.
135538EE	171-10	10	\$1.49	\$3.20	37840EE	171-34	34	\$4.25	\$9.25
37671EE	171-16	16	2.19	5.00	37911EE	171-37	37	5.89	11.75
37719EE	171-20	20	3.99	6.25	37920EE	171-40	40	7.39	17.50
37760EE	171-25	25	3.89	8.75	37954EE	171-50	50	6.75	14.50
37807EE	171-26	26	3.49	8.00	103481EE	171-60	60	8.95	19.75

## Multicolor Flat Ribbon Cable – 28 AWG

- Standard 10-color repeat sequence
- 28 AWG (7 x 36)
- Center spacing: 0.05"
- Voltage rating: 300V
- Temp. rating: -20°C to +80°C
- Stranded copper wire
- Prepackaged and priced in increments of 10' or 25'

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.
112547EE	28RC10	10	\$1.95	\$4.50
105671EE	28RC16	16	3.25	7.25
105689EE	28RC20	20	3.95	9.00
105697EE	28RC25	25	6.29	14.25
105718EE	28RC50	50	10.95	24.95

## Category 5 Network Cable

- Insulation: polyethylene
- Nom. OD.: 0.189"
- Nom. impedance: 100Ω
- Nom. impedance: 8C
- 4 twisted pairs
- Uses modular plug P/N 79281EE, pg 81
- Prepackaged and priced in increments of 25' or 100'

## 24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.
118130EE	Stranded (gray) (7/32 AWG)	\$5.95	\$19.35

COLOR CODE LEGEND...

**NEW SALE** REFURBISHED CLOSEOUT

**NEW SALE** REFURBISHED CLOSEOUT

**NEW SALE** REFURBISHED CLOSEOUT

Due to extraordinary copper market price fluctuations, cable & wire prices are subject to change.

## Solid Hook-Up Wire – 22 AWG

- Temp. range: -55°C to +105°C
- Passes UL VW-1 flame test
- MIL-W-16878D type B
- Wt.: 100' (0.3 lbs.); 1000' (3.8 lbs.)
- For use with breadboards such as the JE20 series, pg 52



Part No.	Cross Ref. No.	Color	100 ft.	Part No.	Cross Ref. No.	Color	1000 ft.
36767EE	122BE/C	Blue	\$5.49	36775EE	122BE/K	Blue	\$39.99
36791EE	122BK/C	Black	5.49	36804EE	122BK/K	Black	39.99
36821EE	122G/C	Green	5.49	36839EE	122G/K	Green	39.99
36855EE	122R/C	Red	5.49	36863EE	122R/K	Red	39.99
36880EE	122W/C	White	5.49	36898EE	122W/K	White	39.99
36919EE	122Y/C	Yellow	5.49	36927EE	122Y/K	Yellow	39.99

## UL 1007 Stranded Hook-Up Wire – 18/22 AWG

300 Volts



**NEW**

- 80°C
- PVC insulation
- CSA: TR-64
- UL style: 1007
- Temperature range: -40°C to +80°C
- Sold in 100' rolls



Part No.	Cross Ref. No.	AWG	Strands (No. x AWG)	Color	Wt. (lbs.)	1	5
126084EE	223SBK/C	22	7 x 30	Black	0.4	\$3.39	\$3.19
126033EE	223SR/C	22	7 x 30	Red	0.4	3.39	3.19
126076EE	223SW/C	22	7 x 30	White	0.4	3.39	3.19
310851EE	UL1007-22-GR-C	22	7 x 30	Green	1.0	3.39	3.19
310877EE	UL1007-22-YL-C	22	7 x 30	Yellow	1.0	3.39	3.19
310885EE	UL1007-22-BL-C	22	7 x 30	Blue	1.0	3.39	3.19
125840EE	203SBK/C	20	10 x 30	Black	0.6	4.95	4.75
125794EE	203SR/C	20	10 x 30	Red	0.5	4.95	4.75
205831EE	203SW/C	20	10 x 30	White	0.5	4.95	4.75
310893EE	UL1007-20-GR-C	20	10 x 30	Green	1.0	4.95	4.75
310914EE	UL1007-20-YL-C	20	10 x 30	Yellow	1.0	4.95	4.75
310922EE	UL1007-20-BL-C	20	10 x 30	Blue	1.0	4.95	4.75
125786EE	183SBK/C	18	16 x 30	Black	0.8	5.79	5.55
125735EE	183SR/C	18	16 x 30	Red	0.8	5.79	5.55
125751EE	183SW/C	18	16 x 30	White	0.8	5.79	5.55
310931EE	UL1007-18-GR-C	18	16 x 30	Green	1.0	5.79	5.55
310949EE	UL1007-18-YL-C	18	16 x 30	Yellow	1.0	5.79	5.55
310957EE	UL1007-18-BL-C	18	16 x 30	Blue	1.0	5.79	5.55

## Kynar™ Wire Wrap Wire – 30 AWG

- Assorted color coded insulation
- Used for prototyping
- Color coded Kynar™ (Polyvinylidene fluoride) insulation
- Silver plated copper (solid conductor)
- UL 1423



- Temperature: -40°C to +125°C
- Wire wrap tools, see web
- Passes UL VW-1 flame test

Part No.	Color	Wt. (lbs.)	100 ft.	Part No.	Color	Wt. (lbs.)	100 ft.
22541EE	Blue	0.1	\$4.95	22664EE	White	0.1	\$4.95
22576EE	Black	0.1	4.95	22605EE	Green	0.1	4.95
22630EE	Red	0.1	4.95	22699EE	Yellow	0.1	4.95

Part No.	Cross Ref. No.	Conductors	Diameter	25 ft.	100 ft.
31860EE	SC4	4	0.20"	\$4.75	\$17.00
31878EE	SC9	9	0.23"	11.25	35.00
31843EE	SC15	15	0.28"	14.75	49.00
31851EE	SC25	25	0.37"	22.25	71.00

Celebrating 30 years of commitment to the Best Values from around the world.

[www.Jameco.com](http://www.Jameco.com) — Quality Components for Less.

The Best Values	The Lowest Prices	60% More Products	Immediate Availability
We search the world to find you the best values!	We guarantee the lowest price in any catalog.	We've added 60% in the last year.	Same day shipping on orders placed before 4PM EST.

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

## Kits Include the Most Popular Components and a Cabinet with Extra Drawers for Your Customized Expansion

Each Kit includes a 20-Drawer Component Cabinet (319599EE), 20 clear plastic drawers (319610EE), 20 clear dividers (319601EE),  
30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

SAVE \$55



81867EE (Capacitor Kit)

## Ceramic Disc Capacitor Kit

SAVE \$16

Includes 520 pcs. (10 values) 50V ±20% Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100 each
Part No.	Description	Wt. (lbs.)	1	10
81859EE	520 pcs. Ceramic Capacitor kit	5.0	\$35.95	\$32.35
130232EE	Refill for 81859EE (520 pcs.)	0.3	17.95	16.49

## Radial Electrolytic Capacitor Kit

SAVE \$11

Includes 240 pcs. (15 values) ±20% Radial Electrolytic Capacitors

10 each	10 each	20 each	20 each	20 each
Part No.	Description	Wt. (lbs.)	1	10
81867EE	240 pcs. Radial Capacitor kit	5.3	\$29.95	\$26.95
130331EE	Refill for 81867EE (240 pcs.)	0.5	17.95	16.49

## Dipped Tantalum Capacitor Kit

SAVE \$30

Includes 150 pcs. (15 values) ±20% Dipped Tantalum Capacitors

10 each	10 each	10 each	10 each	10 each
Part No.	Description	Wt. (lbs.)	1	10
81841EE	150 pcs. Tantalum Capacitor kit	4.8	\$79.95	\$71.95
130260EE	Refill for 81841EE (150 pcs.)	0.3	59.95	53.95

## 1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
Part No.	Description	Wt. (lbs.)	1	10			
81832EE	540 pcs. 1/4-watt Resistor kit	4.9	\$27.95	\$24.95			
103165EE	Refill for 81832EE (540 pcs.)	0.2	12.95	11.49			

## 1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
Part No.	Description	Wt. (lbs.)	1	10			
107879EE	540 pcs. 1/2-watt Resistor kit	5.1	\$29.95	\$26.95			
107852EE	Refill for 107879EE (540 pcs.)	0.4	14.95	13.49			

**Jameco is committed to serving you. Drop us a line at:  
AtHome@Jameco.com**

We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need.

- Cabinet size: 6.0" L x 15.0" W x 7.9" H
- Cabinet: ABS-Black
- Drawer size: 5.5" L x 2.7" W x 1.5" H
- Weight: 4.6 to 6.4 lbs.
- Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.



84961EE (IC kit)

## 74LS Series IC Kit

Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	20 each
Part No.	Description	Wt. (lbs.)	1	10
84961EE	420 pcs. 74LS series IC kit	6.7	\$119.95	\$107.95
130391EE	Refill for 84961EE (420 pcs.)	2.0	99.99	89.99

## Linear Series IC Kit

SAVE \$59

Includes 480 pcs. (40 types) Linear Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
Part No.	Description	Wt. (lbs.)	1	10
84988EE	480 pcs. Linear IC kit	6.0	\$182.95	\$164.65
130411EE	Refill for 84988EE (480 pcs.)	1.3	169.95	145.95

## The Cost of Not Being Prepared



Back when I was growing up, the spare parts scattered across dad's workbench tested my imagination's limits. First I just wanted to wrap wires together. Next I learned to solder. Dad tried to show me how to follow directions and put together kits... eventually I got it. And whenever I overheated a component, I found a replacement in dad's collection.

Nowadays, dad's workbench is far, far away, so I can't easily pilfer a needed component. And whenever I fight traffic going to the local "shack", there

are fewer and fewer of the components I need. By the time I'm through shopping, there's no time left for the project! So how did I solve this problem? I decided to invest in a couple of the assorted parts kits to the left and round out my collection.

My wife likes the fact that the drawers are neatly labeled, and I like having more time with the project!

**Practical Practices**  
Money Saving Tips for the Engineer



135394EE - Electrolytic



135271EE - LEDs



169578EE - Photocells



18294EE - Toy Motors



149649EE - Fans



55968EE - Spacers



319599EE - Cabinet

\* LB grab bag quantities are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 319599EE, above

Shaded in brown on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P/N 163213EE) referenced towards the bottom of the page.

### Capacitors

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17857EE	GB100	200 asst. ceramic disc capacitors	0.2	\$4.95	\$4.49
135335EE	GB100LB*	1 lb. (813 pcs) asst. ceramic disc caps.	1.0	12.95	11.49
17881EE	GB101	100 assorted mylar capacitors	0.3	5.95	5.35
135458EE	GB101LB*	1 lb. (440 pcs) asst. mylar capacitors	1.0	14.95	13.49
17911EE	GB102	100 assorted electrolytic capacitors radial, axial, snap	0.5	4.95	4.49
135394EE	GB102LB*	1.5 lb. assorted (300 pcs) electrolytic caps. radial, axial, snap (photo above)	1.5	12.95	11.49

### Diodes, Transistors and Crystals/Oscillators

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
17961EE	GB107	200 assorted diodes (zener, switching, silicon)	0.1	\$5.95	\$5.35	\$4.79
18171EE	GB127	100 assorted transistors (NPN, PNP, power)	0.1	5.95	5.35	4.79
114446EE	GB150	50 assorted crystals/oscillators	0.2	7.95	6.95	6.25

### Trimmer and Single-Turn Potentiometers

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18075EE	GB113	100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values)	0.1	\$6.95	\$6.25
18278EE	GB174	100 assorted 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	0.2	6.95	6.25
135407EE	GB174LB*	1 lb. (295 pcs) 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	1.0	15.95	14.39

### Integrated Circuits and Sockets

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17996EE	GB108	100 assorted 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	0.2	\$6.95	\$6.25
135280EE	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	1.0	16.95	14.95
18024EE	GB109	100 asst. linear series (LM300, 500, 700, 7800, 7900 reg.) DIP, TO-3, TO-220	0.6	7.95	6.95
145242EE	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)	2.0	16.95	14.95
114964EE	GB171	100 asst. microprocessor series (micros, PALS, RAMs, PROMs, EPROMs)	0.7	12.95	11.49
105620EE	GB120	100 asst. sockets (DIP IC, PGA)	0.3	5.95	5.35
135386EE	GB120LB*	1 lb. (260 pcs) assorted sockets (DIP, PGA, SIMM, SIP, DIN)	1.0	12.95	11.49

### Surprise Computer Products Grab Bag

Various electronic components (capacitors, connectors, sockets, LEDs, resistors, diodes, ICs, transistors, pots, oscillators/resonators, inductors, crystals, switches), cables, power supply, transformer, fan, PC board, keyboard, misc. computer products.  
• Weight is approximate

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18331EE	GB190	Component/computer grab bag	20-25	\$17.95	\$15.95



Best Bargain!

### LEDs and Displays

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18041EE	GB110	100 assorted sizes & colored LEDs (T1/T1 1/4 round and rectangular)	0.1	\$6.95	\$6.29
18323EE	GB186	500 asst. sizes #18041EE LEDs	0.3	19.95	17.95
135271EE	GB110LB*	1 lb. (1900 pcs) asst. #18041EE LEDs	1.0	44.95	40.95
18201EE	GB162	50 asst. sizes of colored displays (7-segment LED, modules, stick)	0.5	6.95	5.95

### 1/4W, 1/2W Resistors and Photocells

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18104EE	GB116	200 asst. 1/4W resistors (5/10%)	0.1	\$5.49	\$4.95
135351EE	GB116LB*	1 lb. (2000 pcs) asst. 1/4W resistors	1.0	14.95	13.49
18139EE	GB117	200 asst. 1/2W resistors (5/10%)	0.2	5.95	5.35
169578EE	GB125	100 asst. values photocells	0.2	12.95	11.49

### Switches, Toy Motors and Fans

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18235EE	GB165	50 assorted switches (toggle, pushbutton, rocker, slide)	0.4	\$8.75	\$7.69
135378EE	GB165LB*	1 lb. (135 pcs) asst. #18235EE switches	1.0	18.95	16.95
18294EE	GB182	5 asst. toy DC motors (1.5-24V)	1.1	5.49	4.95
149649EE	GB193	5 asst. AC/DC fans (photo above)	4.5	8.75	7.69

### Hardware Assortments

• 2-56	• 4-40	• 6-32	• 8-32	• Screws	• Plastic
• Nuts	• Washers	• Steel	• Brass	• Lock Washers	• Aluminum
Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
171571EE	GB149*	1 lb. (500 pcs) asst. types of screws, nuts, washers & lock washers	1.0	\$5.95	\$5.35

### Spacers and Standoffs Assortments

• Round	• Hex	• Aluminum	• Brass	• Steel	• Plastic	• Nylon
Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	
166481EE	GB440	100 asst. 4-40 spacers/standoffs	0.5	\$6.95	\$6.25	
166490EE	GB632	100 asst. 6-32 spacers/standoffs	0.5	6.95	6.25	
55968EE	GB140	100 asst. 4-40, 6-32, 8-32 round/ hex, alum/brass/nylon spacers	0.3	9.95	8.95	
135423EE	GB140LB*	1 lb. (310 pcs) same as P/N 55968EE	1.0	17.95	15.95	

### Schwab's School Selection

Jameco's nine most popular Grab Bags	\$59.89				
(highlighted on this page) are all individually bagged.	Value				
North Dakota Engineer, Loren Schwab,					
recommended this selection of products as a standard					
item. He also recommended a 20-drawer component					
cabinet with labels (319599EE photo above) for storage.					
What's your suggestion?					
Includes: Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.					
Part No.	Cross Ref. No.				
163213EE	GB197	Schwab's School Selection	3.3	\$39.95	\$34.95
319599EE	CAB20	20-drawer component cabinet	4.7	15.95	13.95

### Surprise Component Grab Bag

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, LEDs, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).				
Part No.	Cross Ref. No.			
135263EE	GB191LB*	3 lbs. electronic components	\$17.95	\$15.95

Our Best Seller!

Other Versions  
Available: Call  
800-455-6119

COLOR CODE LEGEND...  
NEW SALE REFURBISHED CLOSEOUT

## Open-Frame Switching Power Supplies

See more Power Supplies @ [www.Jameco.com/PS](http://www.Jameco.com/PS)

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Pricing	
			Voltage@Current (min-max)	Pwr. (W)				1	10
300409EE	Astrodyne	OFM-5002	+12V@0-0.42A	5.04	85-264@47-440	150	UL/CUL/TUV/CE	\$30.39	\$28.50
300417EE	Astrodyne	OFM-5003	+15V@0-0.33A	4.95	85-264@47-440	150	UL/CUL/TUV/CE	30.39	28.50
300425EE	Astrodyne	OFM-5005	+24V@0-0.23A	5.52	85-264@47-440	240	UL/CUL/TUV/CE	30.39	28.50
300433EE	Astrodyne	OFM-0101	+5V@0-2A	10.0	85-264@47-440	50	UL/CUL/TUV/CE	36.09	34.20
300441EE	Astrodyne	OFM-0102	+12V@0-0.85A	10.2	85-264@47-440	180	UL/CUL/TUV/CE	36.09	34.20
300450EE	Astrodyne	OFM-0103	+15V@0-0.67A	10.05	85-264@47-440	180	UL/CUL/TUV/CE	36.09	34.20
300468EE	Astrodyne	OFM-0105	+24V@0-0.42A	10.08	85-264@47-440	240	UL/CUL/TUV/CE	36.09	34.20
300476EE	Astrodyne	OFM-1501	+5V@0-3A	15.0	85-264@47-440	60	UL/CUL/TUV/CE	40.85	38.00
300484EE	Astrodyne	OFM-1502	+12V@0-1.25A	15.0	85-264@47-440	150	UL/CUL/TUV/CE	40.85	38.00
300492EE	Astrodyne	OFM-1503	+15V@0-1.0A	15.0	85-264@47-440	150	UL/CUL/TUV/CE	40.85	38.00
300505EE	Astrodyne	OFM-1505	+24V@0-0.63A	15.12	85-264@47-440	240	UL/CUL/TUV/CE	40.85	38.00
300521EE	Astrodyne	OFM-0202	+12V@0-1.8A	21.6	85-264@47-440	150	UL/CUL/TUV/CE	43.69	40.85
300530EE	Astrodyne	OFM-0203	+15V@0-1.4A	21.0	85-264@47-440	150	UL/CUL/TUV/CE	43.69	40.85
300513EE	Astrodyne	OFM-0201	+5V@0-4.4A	22.0	85-264@47-440	50	UL/CUL/TUV/CE	43.69	40.85
300548EE	Astrodyne	OFM-0205	+24V@0-0.92A	22.08	85-264@47-440	240	UL/CUL/TUV/CE	43.69	40.85
212345EE	Mean Well	PS-25-24	+24V@0-1A	24.0	85-264@47-63	240	UL/CUL/TUV/CE	18.95	17.95
212353EE	Mean Well	PS-25-5	+5V@0-5A	25.0	85-264@47-63	80	UL/CUL/TUV/CE	17.95	16.95
148603EE	Mean Well	PS-25-12	+12V@0-2.1A	25.2	85-264@47-63	100	UL/CUL/TUV/CE	18.95	17.95
190086EE	Artesyn	NFS40-7608	+5V@0-3A; +12V@0-2A; -12V@0-0.35A	43.2	85-264@47-440	50	UL/CSA/VDE/CE	46.39	41.75
88401EE	Mean Well	PT45B	+5V@0-0.4-3A; +12V@0-2.2A; -12V@0-0.3A	45.0	90-264@47-440	50	UL/CUL/TUV/CE	29.95	23.09
148638EE	Mean Well	PS-65-12	+12V@0-5.2A	62.4	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29
216733EE	Mean Well	PT-65B	+5V@0-4.5-5.5A; +12V@0-2.25A; -12V@0-0.5A	63.5	90-264@47-440	50	UL/CUL/TUV/CE	36.95	28.59
148646EE	Mean Well	PS-65-24	+24V@0-2.7A	64.8	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29
201953EE	Mean Well	PS-65-48 <b>—NEW</b>	+48V@0-1.35A	64.8	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29
194896EE	Mean Well	PD65B	+5V@0-4.3-5.5A; +24V@0-2.2A	65.5	90-264@47-440	50	UL/CUL/TUV/CE	34.95	26.39

### Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size (L"xW"xH")	Mounting Holes (L"xW"xDia.)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing	
			Voltage@Current (min-max)	Pwr. (W)								1	10
166967EE	Super Mac	U002512010	+5V@2.5A; +12V@1A	24.5	100-240@50-60	3.7x2.5x1.2	—	50	—	1.0	UL/CSA/TUV	\$14.29	\$12.86
196824EE	Encad	U006612010	+5.2V@3A; +24V@2A	65.0	90-250@50-60	6.3x3.9x1.5	—	—	—	—	UL/CUL/TUV	15.95	13.56

\* Primary Output



## Enclosed Switching Power Supplies

Expanded Selection

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Pricing	
			Voltage@Current (min-max)	Pwr. (W)				1	10
123246EE	Mean Well	S-25-5	+5V@0-5A	25.0	85-264@47-63	50	UL/TUV/CE	\$39.95	\$32.10
123254EE	Mean Well	S-25-12	+12V@0-2.1A	25.2	85-264@47-63	100	UL/TUV/CE	39.95	32.10
123271EE	Mean Well	S-25-24	+24V@0-1.1A	26.4	85-264@47-63	100	UL/TUV/CE	39.95	32.10
123289EE	Mean Well	S-40-5 <b>—NEW</b>	+5V@0-8A	40.0	85-264@47-63	75	UL/CUL/TUV/CE	44.95	38.60
123297EE	Mean Well	S-40-12	+12V@0-3.5A	42.0	85-264@47-63	100	UL/CUL/TUV/CE	44.95	38.60
201996EE	Mean Well	T-40B <b>—NEW</b>	+5V@0-6.3A; +12V@0-2.2A; -12V@0-0.1-0.5A	45.0	85-264@47-63	100	UL/CUL/CE	49.95	42.10
123334EE	Mean Well	S-60-12	+12V@0-5A	60.0	85-264@47-63	120	UL/CUL/TUV/CE	53.95	41.50
123342EE	Mean Well	S-60-15	+15V@0-4A	60.0	85-264@47-63	150	UL/CUL/TUV/CE	53.95	41.50
123351EE	Mean Well	S-60-24	+24V@0-2.5A	60.0	85-264@47-63	150	UL/CUL/TUV/CE	53.95	41.50
123457EE	Mean Well	D-60A	+5V@0-3.4A; +12VDC@0-2.3A	56.0	85-264@47-63	75	UL/CUL/TUV/CE	54.95	44.10
123465EE	Mean Well	D-60B	+5VDC@-3.3A; +24VDC@0-2.1-1.8A	58.0	85-264@47-63	75	UL/CUL/TUV/CE	54.95	44.10
123481EE	Mean Well	T-60B <b>—NEW</b>	+5V@0-5.5A; +12V@0-2.25A; -12V@0-0.5A	61.0	85-264@47-63	100	UL/CUL/TUV/CE	57.95	47.00
147045EE	Mean Well	Q-60B	+5V@0-5.5A; +12V@0-1.2A; -5V@0-0.5A; -12V@0-0.5A	60.0	85-264@47-63	100	UL/CUL	59.95	49.90
123385EE	Mean Well	S-100F-12	+12V@0-8.5A	102.0	88-132/176-264@47-63	125	UL/TUV/CE	66.95	49.90
201970EE	Mean Well	S-100F-24	+24V@0-4.5A	108.0	88-132/176-264@47-63	150	UL/TUV/CE	66.95	49.90
132370EE	Mean Well	Q-120D	+5V@2-8A; 24V@0-2.2A; +12V@0-2.2A; -12V@0-0.2-1A	124.0	88-132/176-264@47-63	80	UL/CUL/TUV/CE	79.95	63.79
123393EE	Mean Well	S-150-5 <b>—NEW</b>	+5V@0-30A	150.0	88-132/176-264@47-63	150	UL/CUL/TUV/CE	64.79	58.30
173411EE	Mean Well	SP-150-15†	+15V@0-10A	150.0	85-264@47-63	100	UL/CUL/TUV/CE	91.95	82.76
173420EE	Mean Well	SP-150-12	+12V@0-16.7A	150.0	85-264@47-63	100	UL/CUL/TUV/CE	91.95	82.76
173403EE	Mean Well	SP-150-24†	+24V@0-6.3A	150.0	85-264@47-63	150	UL/CUL/TUV/CE	91.95	82.76
123422EE	Mean Well	S-150-12	+12V@0-12.5A	150.0	88-132/176-264@47-63	180	UL/CUL/TUV/CE	64.79	58.30
123431EE	Mean Well	SP-150-15	+15V@0-10A	150.0	88-132/176-264@47-63	180	UL/CUL/TUV/CE	64.79	58.30
202032EE	Mean Well	S-150-27	+27V@0-5.6A	151.2	88-132/176-264@47-63	240	UL/CUL/TUV/CE	64.79	58.30
167345EE	Mean Well	S-150-48	+48V@0-3.2A	153.6	88-132/176-264@47-63	240	UL/CUL/TUV/CE	64.79	58.30
123449EE	Mean Well	S-150-24	+24V@0-6.5A	156.0	88-132/176-264@47-63	240	UL/CUL/TUV/CE	69.95	58.30
194773EE	Mean Well	SP-200-12†	+12V@0-16.7A	200.4	85-264@47-63	100	UL/CUL/TUV/CE	102.95	92.66

\* Primary Output <sup>†</sup> PFC (Power factor correction) **For complete specifications and our entire listing of power supplies, please visit our website @ [www.Jameco.com](http://www.Jameco.com)**

## Enclosed Switching Power Supplies (continued)

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Pricing	
			Voltage@Current (min-max)	Pwr. (W)				1	10
13764EE	Mean Well	S-240-12 — NEW	+12V@0-18A	216.0	88-132/176-264@47-63	150	UL/CUL/TUV/CE	\$109.95	\$98.95
13765EE	Mean Well	S-240-24	+24V@0-10A	240.0	88-132/176-264@47-63	180	UL/CUL/TUV/CE	109.95	98.95
16733TEE	Mean Well	S-240-48	+48V@0-5A	240.0	88-132/176-264@47-63	240	UL/CUL/TUV/CE	109.95	93.46
137390EE	Mean Well	SP-300-12 <sup>†</sup>	+12V@0-24A	288.0	88-264@47-63	150	UL/CUL/TUV/CE	181.95	159.70
207204EE	Mean Well	S-320-12	+12V@0-25A	300.0	88-132/176-264@47-63	150	UL/CUL	124.95	112.80
137402EE	Mean Well	SP-300-24 <sup>†</sup>	+24V@0-12.5A	300.0	88-264@47-63	150	UL/CUL/TUV/CE	181.95	159.70
19665EE	Mean Well	S-320-24	+24V@0-12.5A	300.0	88-132/176-264@47-63	150	UL/CUL	124.95	112.80
161980EE	Mean Well	SP-300-48	+48V@0-6.25A	300.0	88-264@47-63	240	UL/CUL/TUV/CE	181.95	154.66
147053EE	Mean Well	SP500-24 <sup>†</sup>	+24V@0-20A	480.0	100-240@50-60	240	UL/CUL/TUV/CE	249.95	216.10
190713EE	Mean Well	PSP-500-12 <sup>†</sup>	+12V@0-41.5A	498.0	90-264@47-63	150	UL/CUL/TUV/CE	269.95	232.09
190721EE	Mean Well	PSP-500-24 <sup>†</sup>	+24V@0-20.8A	499.2	90-264@47-63	150	UL/CUL/TUV/CE	269.95	229.46
190730EE	Mean Well	PSP-500-27 — NEW	+27V@0-18.5A	499.5	90-264@47-63	150	UL/CUL/TUV/CE	269.95	232.09

<sup>†</sup> PFC (Power factor correction) \* Primary Output

## DIN-Rail Switching Power Supplies

- Low cost, high reliability
- Universal AC input range
- Short-circuit, overload, over-voltage protected
- For DIN-Rail terminal blocks see page 29

See [www.Jameco.com](http://www.Jameco.com) for Mounting Rails

- Soft-start circuit, limiting AC surge current
- 100% full-load burn-in test

**NEW**

UL-508



Expanded Selection



192698EE

Part No.	Product No.	Power (W)	Output Volts@Current	Input Voltage (VAC @ Hz/VDC)	Input Current @ Maximum Load	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
192698EE	DR-4512 — NEW	42	12VDC @ 3.5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	\$45.95	\$35.19	\$32.99
192680EE	DR-4524 — NEW	48	24VDC @ 2A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	45.95	35.19	32.99
212265EE	DR-12024 — NEW	120	24VDC @ 5A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	64.89	60.49

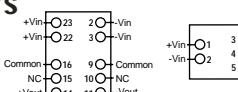
\* Switch selectable



## 3 & 15-Watt DC-to-DC Converters

Mean Well is an ISO-9001 Certified Company

Fig. 1



155918EE



Fig. 2

## 25-Watt DC-to-DC Converters

- Input voltage: 9.2VDC-18VDC
- Built-in EMI filter, low ripple noise
- Size: 3.9" L x 3.9" W x 1.5" H
- Voltage output adjustable
- Input/output connector: screw terminals
- Mating conn.: P/N 103587EE or 103595EE, see web



175812EE

We will change any power plug (see web) on any wall adapter listed (100 pc. minimum).

## Wall Adapters

### AC-to-AC Regulated Wall Adapters

- Input: 120VAC @ 60Hz

Part Number	Product Number	Fig.	Power (W)	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Current (mA)	Ripple p-p (mV)	Pins	Size L" x W" x H"	Pricing	
										1	10
212368EE	SCW03A-05*	1	3	9-18V	+5	600	100	10	1.25x0.8x0.48	\$15.49	\$13.95
155918EE	DCW03A05*	1	3	9-18	+5/-5	300	100	8	1.2 x 0.7 x 0.5	20.95	18.89
161701EE	DCW03A12*	1	3	9-18	+12/-12	125	100	8	1.3 x 0.8 x 0.5	20.95	18.89
155715EE	SKE15A-05	2	15	9-18	+5	3000	50	5	2.0 x 2.0 x 0.43	34.95	31.49
155707EE	SKE15A12	2	15	9-18	+12	1,250	60	4	2.0 x 2.0 x 0.4	34.95	31.19
213276EE	SKE15B-05	2	15	18-36	+5V	3000	50	5	2.0 x 2.0 x 0.43	34.95	31.49
* Regulated											
Part Number	Manufacturer	Product Number	Output Rating	Output Plug			Size (+0%-20%) H" x W" x D"		Case Color	Output Cord Length	Weight (lbs.)
			Voltage (VAC)	Current (mA)	ID x OD	Plug Type F = female					Agency Approvals
210729EE	ITE Power Supply	MKA35090300	9	300	2.1mm	x 5.5mm F	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL
100061EE	ReliaPro	ACU090050	9	500	2.1mm	x 5.5mm F	2.7 x 1.9 x 1.7	Black	6'	0.6	UL/CUL
157041EE	ReliaPro — NEW	ACU090100	9	1000	2.5mm	x 5.5mm F	2.1 x 2.1 x 1.6	Black	6'	0.6	UL/CSA
112336EE	Jameco	AC915F5	9	1500	2.5mm	x 5.5mm F	2.5 x 2.2 x 2.0	Black	6'	0.9	UL
101258EE	Jameco	41A12-500	12	500	2.1mm	x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CSA
309884EE	— — NEW	AA-121A	12	1000	2.1mm	x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.7	UL/CUL
10081EE	Leader Electronics	AC1210F1	12	1000	2.1mm	x 5.5mm F	2.6 x 2.4 x 2.0	Black	6'	0.7	UL/CSA
100167EE	Jameco	AC1210F5	12	1000	2.5mm	x 5.5mm F	3.2 x 2.4 x 2.0	Black	6'	0.7	UL/CSA
318684EE	Jameco — NEW	ACU140085	14	850	2.5mm	x 5.5mm right angle F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL
185439EE	Ault	T5182200-A020G	18	1850	2.1mm	x 5.5mm right angle F	3.3 x 2.7 x 2.2	Black	6'	1.7	CSA
308718EE	Comtrend — NEW	ACU-190051	19	510	2.5mm	x 5.5mm right angle F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL
87581EE	Jameco	AC2405F1	24	500	2.1mm	x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA
140599EE	Jameco	AC2410F1	24	1000	2.1mm	x 5.5mm F	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA
10102EE	Jameco	AC2410M3	24	1000	3.5mm	M	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA
176356EE	Jameco	WP573024	24	1250	2.1mm	x 5.5mm F	3.4 x 2.7 x 2.2	Black	58"	1.6	CSA

COLOR CODE LEGEND...  
NEW SALE REFURBISHED CLOSEOUT

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**



164101EE

171301EE

**AC-to-DC Regulated Wall Adapters**We will change any power plug (see web)  
on any DC wall adapter listed (100 pc. minimum).

Polarity 1 (center negative)



Female

Polarity 2 (center positive)

**2-Wire AC Input – Switching Regulated**

Part Number	Manufacturer	Product Number	Output Rating		Output Plug ID x OD Plug Type / Polarity F = female	Input VAC @ Hz	Size (H" x W" x D")	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing	
			Voltage (VDC)	Current (mA)								1	10
249244EE	Horizon	DFU1250/G9760	12	1500	2.1mm x 5.5mm F 2	108-132@50-60	3.3 x 2.7 x 2.2	Black	6'	0.4	UL/CUL	\$14.95	\$13.49
168487EE	Mean Well	KWM020188	18	1000	2.1mm x 5.5mm F 2	100-240@50-60	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL	17.95	16.19

**2-Wire AC Input – Linear Regulated**

Part Number	Manufacturer	Product Number	Output Rating		Output Plug ID x OD Plug Type / Polarity F = female	Input VAC @ Hz	Size (H" x W" x D")	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing	
			Voltage (VDC)	Current (mA)								1	10
164101EE	ReliaPro	DCR505F12	5	500	2.1mm x 5.5mm F 2	120@60	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	\$9.95	\$8.96
171301EE	Imitation	JOD48U08	5	1000	2.1mm x 5.5mm F 2	120@60	3.1 x 2.9 x 2.0	Black	6'	1.0	UL/CUL	10.95	9.89
190529EE	NOMA	AD9123	9	250	2.5mm x 5.5mm right angle F 2	120@60	2.5 x 2.0 x 1.6	Black	12'	0.5	UL/CSA	6.49	5.85
162996EE	ReliaPro	DCR1205F12	12	500	2.1mm x 5.5mm F 2	120@60	3.2 x 2.2 x 1.9	Black	6'	0.9	—	9.95	8.96
170245EE	ReliaPro	DCR1210F12	12	1000	2.1mm x 5.5mm F 2	120@60	3.2 x 2.3 x 2.0	Black	6'	1.2	—	13.95	12.59

**AC-to-DC Unregulated Wall Adapters**

Expanded Selection

**2-Wire AC Input – Unregulated**

Part Number	Manufacturer	Product Number	Output Rating		Output Plug ID x OD Plug Type / Polarity F = female	Size (H" x W" x D")	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing	
			Voltage (VDC)	Current (mA)							1	10
112070EE	ReliaPro	DC502F5	5	225	2.5mm x 5.5mm F 2	1.9 x 2.2 x 2.0	Black	7'	0.3	UL/CSA	\$7.29	\$6.59
101266EE	ReliaPro	DC605F12	6	500	2.1mm x 5.5mm F 2	2.4 x 1.9 x 1.6	Black	6'	0.4	UL/CSA	4.29	3.86
100845EE	ReliaPro <b>NEW</b>	DBU090020	9	200	2.1mm x 5.5mm F 2	2.1 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.59
133891EE	Horizon	DC903F1	9	300	2.1mm x 5.5mm F 2	2.0 x 1.5 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.56
202155EE	ReliaPro <b>NEW</b>	DBU090035	9	350	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.3	UL/CUL	3.29	2.96
140636EE	ReliaPro	DC904F5	9	400	2.5mm x 5.5mm F 2	2.6 x 2.0 x 2.0	Black	6'	0.6	UL/CSA	4.19	3.79
170270EE	Panasonic	PQLV1	9	500	2.1mm x 5.5mm right angle F 1	2.7 x 1.9 x 1.8	Gray	6'	0.6	UL/CSA	4.49	4.05
100853EE	ReliaPro	DC905F12	9	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	4.95	4.46
236937EE	Horizon	DCU090050A	9	500	2.5mm x 5.5mm right angle F 2	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CSA	5.79	5.21
100175EE	ReliaPro	DC906F5	9	600	2.5mm x 5.5mm F 2	2.7 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	5.49	4.75
100888EE	Everglow	DDU090100	9	1000	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.16
130526EE	ReliaPro <b>NEW</b>	DDE090120	9	1200	2.1mm x 5.5mm F 1	2.4 x 2.0 x 1.8	Black	6'	1.0	UL/CSA	8.95	8.06
158043EE	ReliaPro	DC1202F12R	12	200	2.1mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.49	4.04
114825EE	ReliaPro	DC1205ST	12	500	Connector end may vary	2.5 x 2.0 x 1.7	Black	6'	0.6	CUL	4.75	4.35
102496EE	ITE Power Supply	DC1205F12	12	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	5.25	4.16
131300EE	ReliaPro	SCP41	12	500	2.1mm x 5.5mm right angle F 2	2.6 x 1.9 x 1.7	Beige	6'	0.6	UL/CSA	5.49	4.94
102277EE	ReliaPro	DC1205F5	12	500	2.5mm x 5.5mm F 2	2.5 x 2.1 x 1.7	Black	6'	0.6	UL/CSA	5.19	4.67
200125EE	NooStuff Inc. <b>NEW</b>	DV1250	12	500	2.5mm x 5.5mm F 1	2.4 x 2.0 x 1.6	Black	6'	1.0	UL/CSA	4.25	3.82
117479EE	ReliaPro <b>NEW</b>	DDU120080	12	800	2.1mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CSA	6.95	6.29
100870EE	ReliaPro	DC1210F1	12	1000	2.1mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	8.19	7.37
105478EE	Superworld	DC1210F5	12	1000	2.5mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.49	6.74
199566EE	Superworld	WK1201A01DN	12	1000	2.5mm x 5.5mm F 2 (with RF filter)	3.2 x 2.2 x 2.0	Black	6'	1.2	UL/CSA	6.95	6.26
196779EE	ReliaPro	D1212950	12	1200	2.5mm x 5.5mm F 2	3.0 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.79	7.91
101291EE	KCS Industries	DC1215F5	12	1500	2.5mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	10.39	9.35
189211EE	ACI World <b>NEW</b>	57-12-1500D	12	1500	8-pin mini DIN M	3.4 x 2.6 x 2.2	Black	3'4"	1.7	UL/CUL	4.95	4.49
190001EE	ReliaPro	DC1505F1	15	500	2.1mm x 5.5mm F 2	2.3 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.49	5.84
155803EE	ReliaPro	DC1506F11	15	600	2.1mm x 5.5mm F 1	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CSA	8.95	8.06
203502EE	ReliaPro	48150900	15	900	2.5mm x 5.5mm F 2	2.6 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	6.95	6.25
191652EE	ReliaPro	DC1510F12	15	1000	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	9.59	8.65
162317EE	ReliaPro	DC1605F1	16	500	2.1mm x 5.5mm F 2	2.2 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	7.95	6.95
102285EE	ReliaPro	DC2404F1	24	400	2.1mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CUL	7.95	7.19
191556EE	ReliaPro	DC2405F5	24	500	2.5mm x 5.5mm F 2	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.95	8.09
196322EE	3Com	P48240600A020G	24	600	2.1mm x 5.5mm F 2	3.3 x 2.3 x 1.9	Black	6'	1.1	UL/CSA	8.95	8.05
168495EE	ReliaPro	DC2408F1	24	800	2.1mm x 5.5mm F 2	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL/TUV	10.95	9.86
220960EE	ReliaPro	DFU240100	24	1000	2.1mm x 5.5mm F 1	3.4 x 2.7 x 2.2	Black	6'	1.6	UL/CUL	13.89	12.95
215108EE	ReliaPro <b>NEW</b>	MW48-480050	48	500	2.5mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	10.95	9.85

## Slim Line Switching Wall Adapters



Now you can use all of the outlets in your power strip!

SLIM LINE switching wall adapters are compact in size, lightweight, and the perfect power solution in all those applications where space is critical. Unlike traditional wall adapters, these do not block unused outlets on wall plates, power strips and surge protectors. And their high efficiency satisfies requirements for minimizing power losses.

- Output connector: 2.1mm x 5.5mm F2 (center positive)
- Input voltage: 100 – 240VAC@47-63Hz • Agency approvals: UL/CUL/TUV/CE
- 2-wire AC input • Output cord length: 6' • Color: black

Part No.	Product No.	Output Rating		Dimensions (H" x W" x D")	Weight (lbs.)	Pricing	
		Volts (VDC)	Current (mA)			1	10
252718EE	S08AB050100	5.0	1000	2.5 x 1.1 x 1.7	0.2	\$10.95	\$9.94
252726EE	S08AB050150	5.0	1500	2.5 x 1.1 x 1.7	0.2	11.49	10.43
252822EE	S15AE120100	12.0	1000	2.9 x 1.3 x 2.2	0.3	11.95	10.85
252831EE	S15AE120140	12.0	1250	2.9 x 1.3 x 2.2	0.3	12.95	11.76
254756EE	S15AF150080	15.0	800	2.9 x 1.3 x 2.2	0.2	11.95	10.85

More Wall Adapters at [www.Jameco.com](http://www.Jameco.com)

## Automobile Power Plug & Cord Assembly

- Screw assembly with strain relief
- Plugs directly into cigarette lighter
- Accepts .25" x 1.25" fuse

124759EE: 3' cord pigtail end



Part No.	Description	1	10
115001EE	W/ 5A/250VAC fuse	\$1.95	\$1.65
124759EE	W/ 3A/250VAC fuse & 3' cord	1.89	1.72

JAMECO ReliaPro

- Input voltage: 120VAC @ 60Hz
- Output current: 4.0A
- Output plug: 2.1mm (ID) x 5.5mm (OD) female
- Cord (AC/AC): 6'6"
- Output volts: 16VAC
- Output watts: 64W
- Attached AC cord

Part No.	Manufacturer	Product Number	Agency Approvals	Color	Size	Weight	1	10	50
176604EE	ReliaPro — NEW	TA661640	CSA	Black	3.7" L x 2.9" W x 2.5" H	2.8 lbs.	\$12.95	\$11.65	\$10.49

## AC-to-AC Table-Top Step-Down Adapter



- Regulated and unregulated outputs (see "Output Plug")
- Input voltage: **Regulated**: 100-240VAC @ 50-60Hz **Unregulated**: 120VAC @ 50-60Hz



205911EE

## AC-to-DC Regulated Switching Table-Top Power Supplies

- Regulated and unregulated outputs (see "Output Plug")
- Input voltage: **Regulated**: 100-240VAC @ 50-60Hz **Unregulated**: 120VAC @ 50-60Hz



DIN M

Power Part Number	Mfr. ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Plug/Connector ID x OD/Plug Type/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Weight (lbs.)	Agency Approvals	Pricing	
			Pwr (W)	Volts (VDC)/ Current (A)									1	10
2-Wire AC Input – Regulated Switching														
195805EE	Horizon	DCR920F12	18	+9/2.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.4	6'6"	0.9	UL/CUL/TUV/CE	\$26.95	\$24.25
195768EE	Horizon	DCR920F52	18	+9/2.0	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'6"	0.9	UL/CUL/TUV/CE	22.95	20.65
205911EE	Delta	ADP-25HB <sup>†</sup>	25	+30/0.83	100-125@50-60	2.1mm x 5.5mm F 2	No	Black	3.5 x 2.4 x 1.2	6'7"	1.1	UL/CUL	17.49	15.75
196138EE	DVE	DSA-0283A	23	+5/1, +12/1.49 -5/43	100-240@47-63	5-pin DIN M	No	Black	4.9 x 2.7 x 1.5	6'*	0.8	UL/CSA/TUV	16.95	15.25

\* Use P/N 38050EE for AC cord

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, GlobTek and Jameco

<sup>†</sup> Wall-mount

We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need. Feel free to drop us a line at: [AtHome@Jameco.com](mailto:AtHome@Jameco.com)

## AC-to-DC Regulated Switching Table-Top Power Supplies (Continued)

- Regulated and unregulated outputs (see "Output Plug")
- Input voltage: **Regulated:** 100-240VAC @ 50-60Hz  
**Unregulated:** 120VAC @ 50-60Hz



Polarity 1		Female		Polarity 2		DIN M		155213EE	172064EE	206455EE
Polarity 1	⊕—○—⊖ (center negative)	Polarity 2	⊖—○—⊕ (center positive)							

Power Watts	Part Number	Mfr. ▲ Ref. No. ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Plug/Connector		Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Weight (lbs.)	Agency Approvals	Pricing	
				Pwr. (W)	Volts (VDC)/ Current (A)		ID x OD/Plug Type/Polarity F = female; M = male								1	10
<b>3-Wire AC Input – Regulated Switching</b>																
10-80	196218EE	GlobeTek	GT210891005T3	10	+5/2.0	120-240@50-60	2.1mm x 5.5mm F 2	No	Black	3.4 x 1.9 x 1.3	6'/*	0.4	UL/CUL/TUV/CE	\$19.95	\$17.95	
	228996EE	Phihong	PSA31U-050	20	+5/4.0	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/*	0.5	UL/CUL/TUV/CE	24.95	23.52	
	216531EE	Mean Well	KWM12F-P2MU	18	+12/1.5	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.5	6'/*	0.4	UL/CUL/TUV/CE	26.95	24.25	
	155213EE	Mean Well	P40A-3P2JU	40	+12/3.3	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	5.5 x 2.3 x 1.5	6'/*	0.7	UL/CUL/TUV	35.95	32.36	
	155230EE	Mean Well	SPU50-3	60	+12/5.0	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.5	6'/*	1.3	UL/CSA/TUV	49.95	44.95	
	206455EE	Ault	SC100	25	+16/1.56	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/*	1.2	UL/CUL/TUV/CE	17.95	16.16	
	181884EE	Mean Well	P40A6P2J	40	+24/1.66	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.1 x 2.6 x 1.4	6'/*	0.7	UL/TUV/CE	35.95	32.36	
	161605EE	Mean Well	SPU50-6	60	+24/2.5	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.6	1'/*6'	1.3	UL/CSA/TUV	44.95	39.95	
	172064EE	Mean Well	SPU50-9	60	+48/1.25	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.7	6'/*	1.3	UL/CSA/TUV	44.95	40.49	
	203043EE	Ault	SC200	32	+5/4, +12/1	100-240@50-60	5-pin DIN M	No	Black	5.0 x 3.0 x 1.6	6'/*	1.3	UL/CSA/CE	19.95	17.95	
	190959EE	Mean Well	P25A13D-R1B	26	+5/2.5, +12/0.8 -12/0.3	100-240@47-63	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.4	6'/*	1.1	CUL/TUV/CE	32.95	29.69	
	215132EE	Mean Well	U45T302-R1BU	42	+5/5, +12/1 -12/0.3	90-264@47-63	5-pin DIN M	Yes	Black	5.8 x 3.1 x 1.8	4'/*	1.4	UL/CUL/TUV/CE	49.95	44.99	
	221428EE	Mean Well	U65S105-P2JU	80	+12/6.7	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/*	2.0	UL/CUL/TUV/CE	64.95	58.46	

\* Use P/N 38050EE for AC cord   ▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, GlobTek and Jameco

**More Power Supplies @ [www.Jameco.com](http://www.Jameco.com)**

## AC-to-DC Regulated Linear Table-Top Power Supplies

Polarity 1		Female		Polarity 2		DIN M		Stripped
Polarity 1	⊕—○—⊖ (center negative)	Polarity 2	⊖—○—⊕ (center positive)					

Power Watts	Part Number	Mfr. ▲ Ref. No. ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Plug/Connector		Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Weight (lbs.)	Agency Approvals	Pricing	
				Pwr. (W)	Volts (VDC)/ Current (A)		ID x OD/Plug Type/Polarity F = female; M = male								1	10
<b>2-Wire AC Input – Regulated Linear</b>																
5-15	211060EE	Pacific Data	DV-51AAT	5	+5/1	120@60	2.1mm x 5.5mm rt angle F 2	No	Black	3.4 x 2.7 x 2.2	6'/*6'	1.7	UL/CSA	\$11.95	\$10.76	
	103173EE	Jameco	JE9100	9	+5/0.6, ±12/0.25	120@50-60	5-pin DIN M	No	Black	4.8 x 3.1 x 2.5	6'/*6'	2.3	UL/CSA	20.95	18.89	
	173665EE	Skynet	DND-3005	15	+30/0.5	120-127@60	2.5mm x 5.5mm F 2	No	Black	3.0 x 2.5 x 2.2	5'9"/3'2"	1.4	UL/CUL	13.29	11.99	
<b>3-Wire AC Input – Regulated Linear</b>																
	154624EE	Motorola	5712-305-4C3E <sup>†</sup>	5.6	+5/0.5, ±12/0.13	120@60	8-pin mini DIN M	No	Black	2.9 x 2.6 x 1.9	6'/*	1.2	UL/CSA	\$12.95	\$10.39	

† Wall-Mount   \* Use P/N 38050EE, for AC cord   ▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, GlobTek and Jameco

## AC-to-DC Unregulated Table-Top Power Supplies

Power Watts	Part Number	Mfr. ▲ Ref. No. ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Plug/Connector		Pwr. Ind.	Color	Size (L" x W" x H")	Cords (DC/AC)	Weight (lbs.)	Agency Approvals	Pricing	
				Power (W)	Volts (VDC)/ Current (A)		ID x OD/Plug Type/Polarity F = female								1	10
<b>2-Wire AC Input – Unregulated Linear</b>																
12-29	136565EE	Jameco	DDC1210P	12	+12/1.0	120@60	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'/*6'	1.2	—	\$13.95	\$12.56	
	140880EE	Jameco	DC1215ST	18	+12/1.5	120@60	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'/*6'	1.5	UL	12.95	11.66	
	143714EE	—	DC1220F1	24	+12/2.0	120@60	2.1mm x 5.5mm F 2	No	Black	3.8 x 2.8 x 2.3	6'/*6'	2.2	—	14.95	13.46	
	143722EE	Jameco	DC1220F5	24	+12/2.0	120@60	2.5mm x 5.5mm F 2	No	Black	3.8 x 2.8 x 2.3	6'/*6'	2.2	—	12.95	11.69	
	139096EE	Jameco	DC2412F1	29	+24/1.2	120@60	2.1mm x 5.5mm F 2	No	Black	4.4 x 3.1 x 2.6	6'/*6'	2.5	—	14.95	13.49	
	157956EE	Everglow	EFU120150	18	+12/1.5	120@60	2.5mm x 5.5mm F 2	No	Black	3.4 x 2.7 x 2.2	6'/*6'	2.0	UL	\$10.95	\$9.86	

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, GlobTek and Jameco

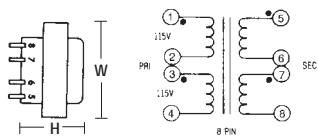
**Over 99% of our products are in stock! Place your order by 6PM EST for same business day shipment. Call us today at 1-800-455-6119.**

## Split-Bobbin Power Transformers

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

- Primary: 115/230VAC, 50-60Hz
- PC terminal pin spacing for accurate placement

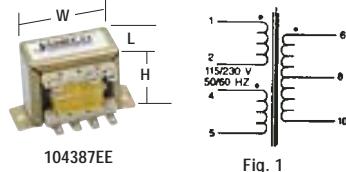
Part Number	Mfr. Cross Ref. No.	Triad Cross	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	Dimensions			Wt. (lbs.)	Pricing	
								L"	W"	H"		1	10
102533EE	XFR1205SB	FS12500	115/230	6.3	6.3V @ .50A	6.3V @ 1.0A	12.6VCT @ .50A	1.31	1.62	1.30	0.4	\$7.29	\$6.49
102592EE	XFR2405SB	FS24500	115/230	12.0	12V @ .50A	12V @ 1.0A	24VCT @ .50A	1.58	1.90	1.46	0.7	8.79	7.95



## Quick-Connect Power Transformers

- Quick-connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Terminals: quick connect, solder
- Input voltage: 115/230VAC, 50-60Hz

Part Number	Mfr. Cross Ref. No.	Triad Cross	Fig.	Input Voltage	Output Voltage	VA Cap	Size of Connect	Dimensions			Weight (lbs.)	Pricing	
								L"	W"	H"		1	10
104387EE	XFR1225Q	FD612	1	115/230VAC	12.6VCT @ 2.5A	31.5	0.187"	1.75	2.33	2.00	1.3	\$9.29	\$8.65
104408EE	XFR1635Q	FD716	1	115/230VAC	16VCT @ 3.5A	56.0	0.187"	2.00	2.70	2.30	1.8	12.95	11.01
101864EE	XFR2424Q	FD724	1	115/230VAC	24VCT @ 2.4A	57.6	0.187"	2.40	2.70	2.25	1.7	11.95	10.76
104416EE	XFR3615Q	FD736	1	115/230VAC	36VCT @ 1.5A	54.0	0.187"	1.90	2.70	2.30	1.8	9.95	8.99



## 115VAC and 115/230VAC Power Transformers

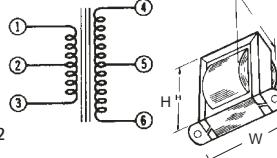
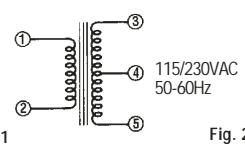
Power transformers have both single and dual-voltage input and center-tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier and filter circuits.

- Primary: 115VAC or 115/230VAC, 50-60Hz

Expanded Selection

115VAC  
50-60Hz

Fig. 1



29225EE

\* Center tap

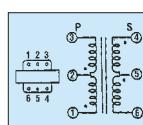
## Modem Coupling Transformers

125356EE/205962EE:

- Insulation resistance: 100MΩ
- Core type: EI-14
- Hipot tested: 1000VAC
- ±20% impedance matching
- Vacuum wax impregnated
- ±20% DC resistance matching



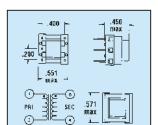
125356EE



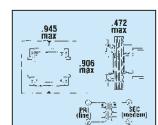
125356EE



141621EE



141621EE



117760EE

Expanded Selection

NEW

## 320VA Variable AC Transformer

• Input voltage:

110VAC @ 60Hz (using pin 1-2)

110VAC @ 50Hz (using pin 1-4)

• Matching input/output terminals:

P/N 103667EE and 109111EE

(disconnect .25" solderless

terminals), see [www.Jameco.com](http://www.Jameco.com)



• Maximum current: 2.5A

• Panel mount

• Size: 2.8"Dia. x 2.1"H

• Shaft length: 0.5"

• Weight: 2.5 lbs.

• One-year warranty

Includes: 3 disconnect .25" solderless terminals

Part No.	Description	1	10
149323EE	320VA variable — NEW	\$53.95	\$48.59

141621EE/117760EE:

- Dielectric strength: 1250VAC
- Inertion Loss: 141621: 1.25dB@1kHz; 117760: 2.50dB@1kHz

## AEEC 110VAC Variable AC Transformers

• Input voltage: 110VAC @ 60 Hz

• Power: 500 and 2000VA

• Output voltage: 0 to 130VAC

• Output analog voltmeter

• Input conn.: 3-prong plug w/ 5' cord

• Output conn.: 3-prong outlet type

• Lighted on/off power switch

169640EE: • 5A @ 250V fuse

• Size: 8.3" x 6.5" x 7.0"

• Weight: 15.6 lbs.

169658EE: • 20A @ 250V fuse

• Size: 9.8" x 8.0" x 7.0"

• Weight: 26.5 lbs.



169658EE

## 110/220VAC Variable AC Transformers

- Input: 110VAC or 220VAC
- Power: 500-2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/European output plugs
- Lighted on/off power switch



121275EE

• Color code legend...

**NEW SALE REFURBISHED CLOSEOUT**

• Color code legend...

**NEW SALE REFURBISHED CLOSEOUT**

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

## Power Cords

- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C
- Voltage rating: 300 volts

AWG	Volts	Amps	VA
18	125	10	1250
14	125	15	1875

Power Cord w/ pigtail  
(Fig. 1)RFI Power Cord  
(Fig. 2)

Part No.	Mfr. Cross Reference No.	Description	Wt. (lbs.)	Approvals	Fig.	Length	AWG	Cord Type*	1	10
37997EE	17236	3-conductor power cord with pigtail	.30	UL/CSA	1	6'	18/3	SVT	\$2.79	\$2.32
38050EE	17250	3-conductor power supply cord	.36	UL/CSA	2	6'	18/3	SVT	3.75	3.29
125541EE	17504	3-conductor power supply cord	.71	UL/CSA	2	6' 7"	14/3	SJT	4.95	4.46

\* Thermoplastic Cord Jacket Type: Light duty; SVT (Round); Light service; SJT (Round); Junior service

## International Step-Up/Step-Down Transformers



- Wide selection to meet your power requirements

\* Manufacturer may vary

## AC Tube Axial Fans

NEW

- Rating 115 & 220VAC @ 50/60Hz
- Ball and sleeve bearings

- Low acoustical noise rating
- Air flow from 11 to 226 CFM

- Agency approved fans

Expanded Selection



Part Number	Manufacturer	Product Number	Volt. (VAC)	Size* (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing	
												1	10
21386EE	Fulltech	— NEW	UF60D11H	115 2.36 x 2.36 x 1.18	10.2	Ball	35	4	UL/CUL/VDE/CE	28	12" leads	\$15.95	\$14.39
162704EE	Toyo		USTF60301153W	115 2.36 x 2.36 x 1.18	11	Ball	38	4	UL/CSA/CE	29	12" leads	15.49	13.95
303491EE	Fulltech		UF0611BTH	115 2.36 x 2.36 x 1.18	10	Ball	38	4	UL/CSA/CE	29	Terminals	15.49	13.95
146077EE	Common Wealth	— NEW	FP108AX-S1-B	115 3.15 x 3.15 x 1.00	23	Ball	140	14	UL/CE	29	12" leads	12.95	11.69
300556EE	Fulltech	— NEW	UF80B11SWH	115 3.15 x 3.15 x 1.00	24	Sleeve	140	14	UL/CUL/TUV/CE	35	12" leads	9.19	8.25
300257EE	Fulltech	— NEW	UF80B11BTH	115 3.15 x 3.15 x 1.00	24	Ball	140	14	UL/CUL/TUV/CE	35	Terminals	10.19	9.18
300581EE	Fulltech	— NEW	UF80A11SWL	115 3.15 x 3.15 x 1.50	25	Sleeve	110	12	UL/CUL/TUV/CE	32	12" leads	9.59	8.64
300302EE	Fulltech	— NEW	UF80A11BWL	115 3.15 x 3.15 x 1.50	25	Ball	110	11	UL/CUL/TUV/CE	32	12" leads	10.55	9.50
300329EE	Fulltech	— NEW	UF80A11BTL	115 3.15 x 3.15 x 1.50	25	Ball	110	12	UL/CUL/TUV/CE	32	Terminals	10.55	9.50
300599EE	Fulltech	— NEW	UF80A11BWH	115 3.15 x 3.15 x 1.50	29	Ball	120	12	UL/CUL/TUV/CE	36	12" leads	11.39	10.26
300388EE	Fulltech	— NEW	UF80A11BTH	115 3.15 x 3.15 x 1.50	30	Ball	120	12	UL/CUL/TUV/CE	36	Terminals	11.39	10.26
297932EE	Fulltech		UF80A11SWH	115 3.15 x 3.15 x 1.50	30	Sleeve	120	12	UL/CUL/TUV/CE	36	12" leads	10.19	9.18
303386EE	Fulltech		UF80A11STH	115 3.15 x 3.15 x 1.50	30	Sleeve	120	12	UL/CUL/TUV/CE	36	Terminals	10.19	9.18
303394EE	Fulltech		UF80A11STL	115 3.15 x 3.15 x 1.50	25	Sleeve	100	11.5	UL/CUL/TUV/CE	32	Terminals	10.19	9.18
75459EE	Sunon	— NEW	SF11592A-1092HBT	115 3.63 x 3.63 x 1.00	37	Ball	110	12	UL/CSA/TUV/CE	40	Terminals	15.95	14.39
75432EE	Sunon	— NEW	SF11592A-1092HSL	115 3.63 x 3.63 x 1.00	36	Sleeve	130	12	UL/CSA/TUV/CE	39	12" leads	12.55	11.29
303466EE	Sunon		SF11592A-1092HBL	115 3.63 x 3.63 x 1.00	37	Ball	110	12	UL/CSA/TUV/CE	40	12" leads	15.95	14.39
303407EE	Sunon		SP100A-1123XBL	115 4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CSA/TUV/CE	47	12" leads	14.95	13.95
303415EE	Common Wealth		FP108-1-S1-B/W	115 4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	12" leads	16.95	15.29
303482EE	Fulltech		UF12A11SWL	115 4.68 x 4.68 x 1.50	81	Sleeve	150	15	UL/CSA/TUV/CE	15	12" leads	12.85	11.54
303440EE	Fulltech		UF12A11BWL1	115 4.68 x 4.68 x 1.50	64	Ball	80	115	UL/CSA/TUV/CE	37	12" leads	14.95	13.49
303360EE	Fulltech	— NEW	UF12A11BTL1	115 4.68 x 4.68 x 1.50	64	Ball	80	15	UL/CUL/TUV/CE	37	Terminals	12.85	11.54
300791EE	Fulltech	— NEW	UF12A11STL	115 4.68 x 4.68 x 1.50	81	Sleeve	150	15	UL/CUL/TUV/CE	38	Terminals	10.95	9.84
111894EE	Common Wealth	— NEW	FP108-1-S1/W	115 4.68 x 4.68 x 1.50	105	Sleeve	180	17	UL/CSA/CE	47	12" leads	13.95	12.59
106585EE	Common Wealth		FP108-1-S1/T	115 4.68 x 4.68 x 1.50	105	Sleeve	180	12	UL/CSA/CE	47	Terminals	15.95	14.39
16934EE	Common Wealth		FP108-1-S1-B	115 4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	Terminals	16.95	15.29
212599EE	Fulltech	— NEW	UF12A11BWH	115 4.68 x 4.68 x 1.50	106	Ball	190	15	UL/CUL/TUV/CE	46	12" leads	12.95	11.95
275792EE	Sunon	— NEW	SP101A-123HBT	115 4.68 x 4.68 x 1.50	107	Ball	180	18	UL/CSA/TUV/CE	50	Terminals	12.85	11.19
206308EE	Adda	— NEW	AA1281UB-AT	115 4.68 x 4.68 x 1.50	107	Ball	230	24	CE	48	Terminals	14.95	13.45
102883EE	Sunon		SP100A-1123XBT	115 4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CUL/TUV/CE	50	Terminals	14.95	13.95
108724EE	Fulltech		UF15AC11BTH	115 6.75 x 5.90 x 1.50	211	Ball	230	28	UL/CUL/TUV/CE	58	Terminals	27.95	27.10
212564EE	Fulltech	— NEW	UF15PC11BTL	115 6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CUL/TUV/CE	41	Terminals	18.89	17.15
212572EE	Fulltech	— NEW	UF15PC11BWL	115 6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CUL/TUV/CE	41	12" leads	18.89	17.15
212581EE	Fulltech	— NEW	UF15PC11BWH	115 6.75 x 5.90 x 2.00	226	Ball	250	30	UL/CUL/TUV/CE	58	12" leads	24.95	22.46
189683EE	Fulltech	— NEW	UF15PC11BTH	115 6.75 x 5.90 x 2.00	226	Ball	250	30	CSA	58	Terminals	29.95	26.35
303458EE	Sunon		DP200A-2123XBL	220 4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	12" leads	15.95	14.39
102891EE	Sunon		DP200A-2123XBT	220 4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	Terminals	15.95	14.39

♦ Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	150	170



206156EE



102955EE

## Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Low acoustical noise rating
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Power input by lead wires or terminals



♦ Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	150	170

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size* (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Pricing		
											1	10	
163475EE	Nidec	C34427-55APP	5	1.00 x 1.00 x 0.40	0.5	Ball	90	0.45	—	22	2"	\$4.95	\$4.46
206156EE	Sunon <b>—NEW</b>	KDE0502PFB3-8	5	1.00 x 1.00 x 0.40	1.83	Ball	60	0.3	UL/CSA/TUV/CE	23	5"	11.95	10.76
196373EE	Sunon	KD0504PFB2-8	5	1.60 x 1.60 x 0.40	5.5	Ball	90	0.5	UL/CUL	23	12"	8.95	8.09
102921EE	Sunon	KD0504PFS2-8	5	1.60 x 1.60 x 0.40	6.3	Sleeve	120	0.6	UL/CUL	24.3	12"	7.95	6.95
207061EE	Adda	AD0505MB-G90	5	2.00 x 2.00 x 0.40	10.5	Ball	120	0.7	UL/CSA/CE	24	11"	7.95	6.55
207052EE	Adda	AD0412MB-K90	12	1.60 x 1.60 x 0.25	5.5	Ball	60	0.72	UL/CSA/TUV/CE	25	5"	6.95	6.26
189691EE	Sunon	KD1204PFS2	12	1.60 x 1.60 x 0.40	6.3	Sleeve	70	0.9	UL/CSA/TUV	24	12"	7.95	7.19
161699EE	Sunon	KD1204PFB2-8	12	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	7.95	6.95
212716EE	Sunon	KDE1204PFB2-H	12	1.60 x 1.60 x 0.40	6.5	Ball	90	1.1	UL/CUL/TUV/CE/VDE	27	12"	6.65	4.95
213428EE	Adda <b>1</b>	AD0412HB-G76	12	1.60 x 1.60 x 0.40	6.7	Ball	100	1.2	CE	30.2	12/3 leads	7.59	6.83
206164EE	Sunon	KDE1204PKBX-8	12	1.60 x 1.60 x 0.80	10	Ball	90	1.1	UL/TUV/CE	29.4	12"	8.95	7.95
212644EE	Sunon	KDE1205PFB3-HG	12	2.00 x 2.00 x 0.40	8.5	Ball	60	0.7	UL/CUL/TUV/CE/VDE	26	12"	6.49	5.84
212652EE	Sunon	KDE1205PFB2-HG	12	2.00 x 2.00 x 0.40	10.6	Ball	80	1.0	UL/CUL/TUV/CE/VDE	31.5	12"	6.65	4.95
212661EE	Sunon	KDE1205PFB1-HG	12	2.00 x 2.00 x 0.40	12.5	Ball	110	1.4	UL/CUL/TUV/CE/VDE	36	12"	6.65	4.95
175046EE	Globe Motors	D24-B08A-04W3-000	12	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	6.95	6.25
144160EE	Adda	AD0612LB-C70GL	12	2.36 x 2.36 x 0.80	12.6	Ball	80	1.0	UL/CSA/TUV	22.7	6"	8.49	7.69
150421EE	Jamicon	JF0625B1H	12	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	6.95	6.29
16993EE	Various <b>2 *</b>	FAN7315SL	12	3.15 x 3.15 x 1.00	25-40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12**	6.95	6.29
75361EE	Various <b>*</b>	FAN6315BL	12	3.15 x 3.15 x 1.00	25-40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12**	5.95	5.35
154288EE	Sunon	KDE1208PTS3-6	12	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5"	4.55	4.09
185834EE	Panaflo	FBM08A12H	12	3.15 x 3.15 x 1.00	39.6	Sleeve	220	2.1	—	32	11"	6.95	6.29
206181EE	Sunon	KDE1208PTS1-6	12	3.15 x 3.15 x 1.00	42	Sleeve	220	2.6	UL/CSA/TUV/CE	34	9"	5.95	5.35
185826EE	NMB <b>3</b>	3110KL-04W-B69	12	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13/3 leads	6.95	6.26
102955EE	Sunon	KD1208PBT1-6	12	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12"	6.49	5.85
172460EE	Nidec <b>3</b>	TA300DCM33406-68	12	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11/3 leads	9.95	8.99
190983EE	Sunon	KD1209PTB1-6A	12	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	7.25	6.55
162739EE	NMB (Smart Fan) <b>T</b>	3610KL-04W-B56	12	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10/3 leads	7.19	6.47
102963EE	Nidec	TA350DC-M33503-55	12	3.63 x 3.63 x 1.00	56	Ball	400	4.8	UL/CSA	45	8"	7.95	6.95
213567EE	Nidec <b>3</b>	A34124-33	12	3.83 x 3.72 x 1.30	25	Ball	650	7.8	UL/CUL	60	11.5/3 leads	19.95	17.95
174140EE	Common Wealth	FP108MS3	12	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	6.95	6.29
102875EE	Delta	WFB1212H	12	4.68 x 4.68 x 1.00	86.5	Ball	360	4.3	UL/CSA/TUV	37.6	12"	10.95	9.89
163619EE	NMB (Smart Fan) <b>T</b>	4710NL012P5350	12	4.68 x 4.68 x 1.00	90	Ball	740	8.9	—	38.5	12"	4.95	4.46
94625EE	Sunon	KD1212PMB1-6A	12	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV/CE	42	12"	11.95	10.79
189851EE	Delta	WFB1212HE	12	4.68 x 4.68 x 1.50	108	Ball	490	5.9	UL/CSA/VDE/CE	41.3	12"	11.95	10.79
189866EE	NMB	3610KL-05W-B30	24	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	7.95	7.16
153411EE	Sunon	KD2412PMB2-6A	24	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	11.95	10.79

<sup>1</sup> ATX PC type

<sup>2</sup> Replacement for the PC/XT computer power supply fan

<sup>3</sup> Speed sensor

<sup>†</sup> 162739EE: (50°C, 3 leads); P/N 163619EE: (35°C)

\* Manufacturers &amp; specifications may vary



104192EE

## Straight and Right-Angle 24" Fan Cords

## Fan Guards and Filters

Compatible with DC and AC Fans – above

• Guards &amp; filters fit fans by matching the size dimension. Example: P/N 16993EE fan (3.15") matches P/N 31923EE metal guard (3.15").

Part No.	Description*	1	10
120037EE	2.36" metal (chrome) guard	\$ .79	\$ .71
31923EE	3.15" metal (chrome) guard	.79	.65
25734EE	4.68" metal (chrome) guard	1.09	.89
138579EE	3.15" alum. washable filter	2.95	2.65
130104EE	4.68" alum. washable filter	3.49	3.19



## DC Motors

## 2.5-26VDC Motors


**NEW**

Expanded Selection


**238465EE**
**238457EE**
**154923EE**
**231925EE**
**238511EE**
**238466EE**
**238458EE**
**154924EE**
**231926EE**
**238512EE**
**238467EE**
**238459EE**
**154925EE**
**231927EE**
**238513EE**
**238468EE**
**238451EE**
**154926EE**
**231928EE**
**238514EE**
**238469EE**
**238452EE**
**154927EE**
**231929EE**
**238515EE**
**238470EE**
**238453EE**
**154928EE**
**231930EE**
**238516EE**
**238471EE**
**238454EE**
**154929EE**
**231931EE**
**238517EE**
**238472EE**
**238455EE**
**154930EE**
**231932EE**
**238518EE**
**238473EE**
**238456EE**
**154931EE**
**231933EE**
**238519EE**
**238474EE**
**238457EE**
**154932EE**
**231934EE**
**238520EE**
**238475EE**
**238458EE**
**154933EE**
**231935EE**
**238521EE**
**238476EE**
**238459EE**
**154934EE**
**231936EE**
**238522EE**
**238477EE**
**238460EE**
**154935EE**
**231937EE**
**238523EE**
**238478EE**
**238461EE**
**154936EE**
**231938EE**
**238524EE**
**238479EE**
**238462EE**
**15493**

## 2.5-26VDC Motors (Continued)

JAMECO ReliaPro Mabuchi MOTORS

NEW



177498EE



238473EE



232004EE



153656EE



237403EE

Expanded Selection

Part Number	Product Number	Manufacturer	Nominal Voltage (VDC)	Voltage Range (VDC)	@ Maximum Efficiency			Efficiency	Terminal Type	Shaft Dia. (in.)	Shaft Length (in.)	Size (D" x L")	Pricing	
					Current (Amps)	RPM	Torque (g-cm)						1	10
177498EE	RC280RA-2485	Mabuchi Motor	7.2	3-14	1.180	14260	33.3	57	0.11"/Solder	0.080	0.430	0.95 x 1.20	\$1.75	\$1.55
238473EE	RF-370CA-15370	ReliaPro NEW	12	3-12	0.07	1970	16	61.4	Solder	0.078	0.346	0.960 x 1.213	5.55	4.95
238414EE	EG-530AD-2B (CW)	ReliaPro NEW	12	8.4-15	0.07	2400	60	—	Solder	0.078	0.307	1.377 x 0.953	4.49	4.09
232004EE	UC-280S-19160	Nichibo NEW	12	6-12	0.57	9000	46.6	63.4	Solder	0.078	0.433	0.944 x 1.200	2.55	2.29
232047EE	MD5-2445	Nichibo	12	6-12	2.050	19850	79.7	66	Solder	0.091	0.622	1.08 x 1.28	2.25	1.99
153656EE	RS550PF	Mabuchi Motor <sup>2</sup>	12	6-15	1.400	6500	44.1	—	0.15"/Solder	0.13	0.66	1.45 x 2.25	3.29	2.99
232021EE	MD5-1885	Nichibo NEW	12	6-18	0.74	9820	53.5	60.7	Solder	0.091	0.622	1.082 x 1.279	2.25	1.79
206949EE	OJT360S14280	Nichibo NEW	12	9-30	0.350	4930	44.5	52	0.11"/solder	0.09	0.45	1.09 x 1.30	1.69	1.45
237403EE	40SYT002	ReliaPro	26	—	1.500	300	815	—	Quick Connect	0.196	1.021	1.57 x 3.85	25.95	23.35

<sup>2</sup> Manufacturer may vary

## 12 VDC Reversible Gear Head Motors



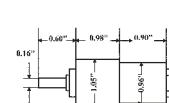
167038EE



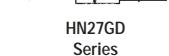
153437EE



HN27GD Series

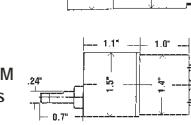


GH30GM Series



HN27GD

Series



GH35GM

Series

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC

Part Number	Product Number	Rated Voltage	Operating Range (VDC)	No Load		Started Torque (g-cm)	Gear Ratio	Gear Case Size Dia. x Length (in.)	Motor Size Dia. x Length (in.)	Shaft Size Dia. x Length (in.)	Pricing	
				Current (mA)	Speed (rpm)						1	10
167038EE	GH12-0953Y	12	4.5 - 24	45	14	1200	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	\$16.49	\$14.85
167046EE	GH12-1828Y	12	4.5 - 24	195	31	1300	90:1	1.1 x 1.3	1.1 x 0.8	.16 x .60	21.95	19.79

## GH30GM Series

170641EE	GH12-1828Y-10 NEW	12	6.0 - 24	105	8	3500	332:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	\$23.95	\$21.59
153437EE	GH12-1045Y	12	3.0 - 12	90	7	800	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	18.95	17.09
159417EE	GH12-1921Y NEW	12	4.5 - 12	200	35	2000	132:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	21.95	19.79
162190EE	GH12-1324Y225	12	4.5 - 12	145	176	300	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	16.95	15.25

## GH35GM Series

155011EE	GH12-1926	12	4.5 - 12	55	2	15000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	\$21.95	\$19.79
155820EE	GH12-1830Y-P	12	4.5 - 12	50	4.5	13000	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	21.95	19.79
155838EE	GH12-1641T-L	12	3.0 - 12	65	20	10000	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	23.95	21.59
152910EE	GH12-1926Y	12	4.5 - 12	48	44	11800	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	21.95	18.66
151440EE	GH12-1632TI	12	4.5 - 12	75	69	11000	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	21.95	18.55
155854EE	GH12-1641T-F	12	3.0 - 12	65	87	7000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79
155862EE	GH12-1926Y-F	12	4.5 - 12	60	100	5000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79
161373EE	GH12-1345T	12	4.5 - 12	185	116	650	30:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	23.95	20.36
161381EE	GH12-1634T	12	4.5 - 12	111	200	3600	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79
164785EE	GH12-1640Y	12	4.5 - 24	45	300	800	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	23.95	21.59

## 12VDC Continuous Push and Pull Solenoids



262262EE



262271EE



142463EE



163803EE



149761EE

Part No.	Mfr. Cross Reference No.	Type	Voltage (VDC)	Coil Res. (±10% Ohms)	Power Consump. (W)	Holding Force (lbs. @ 20°C)	Stroke	Size L x Dia. (in.) <sup>†</sup>	Shaft Dia. (in.)	Wt. (lbs.)	Pricing	
											1	10
262262EE	SMO-0837L12STD	Open frame-pull	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.310	0.21	\$7.29	\$6.56
262271EE	SMO-0837S12STD	Open frame-push	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.08/0.31*	0.21	8.39	7.59
142463EE	SMT-1130L12A	Tubular-pull	12	36	4.0	0.63	0.40	1.6 x 0.4	0.150	0.04	6.95	6.26
149753EE	SMT-1325S12A NEW	Tubular-push	12	36	4.0	0.75	0.47	1.9 x 0.5	0.063	0.05	9.95	8.96
163803EE	A420-067074-01	Tubular-push	12	43	3.4	0.75	0.17	2.0 x 0.6	0.156	0.10	9.95	7.65
215141EE	SMT-2251L24AA NEW	Tubular-pull	24	60	10.0	4.00	1.00	3.0 x 1.0	0.440	0.40	10.95	9.31
149761EE	SMT-1632S12A	Tubular-push	12	21	7.0	1.50	0.24	2.5 x 0.6	0.098	0.10	10.95	9.86
145314EE	SMT1913S12A NEW	Tubular-push/pull	12	89	2.0	1.12	0.16	1.2 x 0.7	0.110	0.05	9.95	8.96

<sup>†</sup> Open frame type dimensions: L" x W" x H"; \* Dual shaft

Jameco EXCLUSIVE

## Bipolar and Unipolar Stepper Motors

- Bearing type: ball
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use shaft coupler, P/N 161998EE (see web)

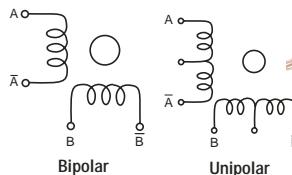


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

Fig. 6

Part Number	Mfr. Cross Ref. No.	Fig.	Step Angle	No. of Phases	Drive System	Volt. (VDC)	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Pricing	
																	1	10	
237526EE	48BYGH001	1	1.8°	2	Bipolar	2	2.1	950	2.3	200	1700	1.22	0.10	0.200	0.95	1.67	1.34	\$16.49	\$14.85
237518EE	42BYG017	1	1.8°	2	Bipolar	6.3	15	420	16	150	1400	1.22	0.10	0.200	0.51	1.67	1.34	16.49	14.85
155459EE	42BYG023*	1	1.8°	2	Bipolar	12	30	400	36	220	2100	1.73	0.1	0.197	0.6	1.7	1.3	17.95	16.29
237569EE	57BYG009	4	1.8°	4	Unipolar	2.4	1	2400	1.5	—	5995	1.86	0.20	0.250	0.83	2.29	2.20	32.29	29.09
237551EE	57BYG008	4	1.8°	4	Unipolar	4	3.1	1300	4.4	—	4996	1.86	0.20	0.250	0.83	2.29	2.01	29.95	26.95
237622EE	57BYGH802	5	1.8°	4	Unipolar	4.8	3.2	1500	2.9	—	8157	1.86	0.20	0.250	0.83	2.24	2.20	37.69	33.95
223870EE	57BYG070	4	1.8°	4	Unipolar	5.4	3.6	1500	6	977	8974	2.65	0.20	0.25	0.80	2.20	2.00	49.95	42.46
172646EE	42BYG205	6	1.8°	4	Unipolar	9.6	75	480	15	220	2300	1.73	0.10	0.20	0.90	1.70	1.40	17.95	15.25
173180EE	30BYJ02AH <sup>1</sup>	2	0.9°	4	Unipolar	12	200	60	49.5	400	400	1.42	0.14	0.194	0.36	1.18	.68	11.49	9.77
237542EE	57BYG007	4	1.8°	4	Unipolar	12	32	380	30	—	2997	1.86	0.20	0.250	0.83	2.29	1.61	25.95	23.35
213321EE	35BY48-27	3	7.5°	4	Unipolar	12	15	800	68	90	460	1.96	0.13	0.078	0.25	1.38	0.83	8.95	7.61
162026EE	57BYG084	4	1.8°	4	Unipolar	12	20	600	22	725	6000	2.65	0.2	0.250	1.0	2.2	2.0	26.95	24.29
224021EE	42BYG016	2	1.8°	4	Unipolar	12	75	160	40	150	900	1.73	0.10	0.20	0.70	1.70	0.50	16.95	15.25
155432EE	42BYG228	2	1.8°	4	Unipolar	12	30	400	23	220	2000	1.73	0.10	0.20	0.90	1.70	0.50	17.95	16.29

\* Dual shaft <sup>1</sup> 173180EE: Motor step angle 7.5°; Gear ratio 85:25:1

## Bipolar and Unipolar Stepper Motors

- Excellent for precision control
- Can be operated in forward/reverse mode
- See website for compatible power supplies

Fig. 1



Fig. 2



<sup>1</sup> 163408EE: Dual shaft <sup>2</sup> 171601EE: Dual shaft with 10 tooth gear

## KAE Industrial Motion Controllers for Brush and Brushless Motors

JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port.

### 184989EE: PIC-SERVO motor control board

- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32-bit resolution
- Integrated 12 to 48VDC supply power amplifier @ 3A continuous, 6A peak
- Limit switch inputs, general purpose analog input, PWM, DIR output for use with external amps

### 185009EE: PIC-SERVO 3PH motor control board for brush or brushless motors

- For 3-phase brushless motors with hall effect sensors or conventional DC brushtype motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply
- Same features as 184989EE above but with support for linear and circular interpolation using the PIC-SERVO CMC chipset

Part No.	Description	Size (L" x W" x H")	1	10
184989EE	PIC-SERVO	3.1 x 2.1 x 0.9	\$179.95	\$161.95
185009EE	PIC-SERVO 3PH	3.1 x 3.1 x 1.0	239.95	215.95

rmv electronics

## 12-Bit Stepper Motor Control and Analog/Digital DAC Board

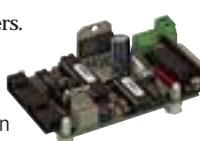
- High speed serial port interface up to 230.4kbps
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V inputs
- 24 digital I/O (TTL) and 11 analog channels w/ 12-bit res.
- PWM, period measurement and stepper motor function
- Free 32-bit DLL, OCX and Labview driver for rapid system development

Requires: External driver circuit parts kit (P/N 208573EE, below) – consisting of 5 ea. 1kΩ 1/4W resistors, 5 ea. 330Ω 1/4W resistors, 5 ea. MJE 3055T transistors, and 5 ea. 1N4003 diodes

Part No.	Description	1	10
109911EE	Stepper motor control board	\$104.75	\$94.29
208573EE	Unipolar circuit parts kit	3.49	3.15

COLOR CODE LEGEND...

**NEW SALE** REFURBISHED CLOSEOUT



184989EE



185009EE



Driver Schematic

Over 99% of our products are in stock!

Place your order by 6PM EST for same business day shipment.

1-800-455-6119 [www.Jameco.com](http://www.Jameco.com)

## 12VDC Solenoid Valve

- Operating voltage: 12VDC
- Operational temperature: -29°C to 85°C
- Current: 350mA
- Air leakage: 1.c./min. max. 4psi
- 0.25° quick disconnect terminals
- Size: 1.2" L x 0.92" Dia
- Weight: 0.1 lbs.

Part No.	Description	1	10
169834EE	Solenoid valve	\$6.95	\$6.25

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

**NiCAD and NiMH Battery Packs**

Rechargeable battery packs are available in many configurations and capacities. Each series-connected pack is offered w/ 6" wire leads & 0.125" W x 0.4" L solder tab hook-ups.

- AA Cell Size: 1.92" L x .56" Dia
- SC Cell Size: 1.65" L x .86" Dia
- D Cell Size: 2.36" L x 1.26" Dia

2.4 Volts			Solder Tabs		Lead Wires			
Cell Size	Type	mAh	Jameco Part No.		Pricing			
			1	10	1	10		
AA	NiCD	700	298097EE	\$4.35	\$4.26	298935EE	\$5.35	\$5.22
AA	NiCD	1000	298337EE	5.35	4.87	299081EE	6.55	6.32
AA	NiMH	1800	298484EE	9.39	8.54	299233EE	11.29	10.77
SC	NiCD	2200	298636EE	10.35	9.82	299381EE	11.29	10.77
D	NiCD	5000	298783EE	24.75	22.25	299532EE	24.75	22.25
AA	NiCD	700	298214EE	4.35	3.95	298960EE	5.29	5.22
AA	NiCD	1000	298361EE	5.39	4.90	299111EE	6.55	6.34
AA	NiMH	1800	298513EE	9.49	8.55	299268EE	11.29	10.77
SC	NiCD	2200	298661EE	10.35	9.82	299410EE	11.29	10.77
D	NiCD	5000	298812EE	24.69	22.24	299567EE	24.69	22.24

3.6 Volts			Solder Tabs		Lead Wires			
Cell Size	Type	mAh	Jameco Part No.		Pricing			
			1	10	1	10		
AA	NiCD	700	298193EE	\$6.19	\$5.92	298943EE	\$7.15	\$6.87
AA	NiCD	1000	298345EE	8.05	7.31	299090EE	9.35	8.61
AA	NiMH	1800	298492EE	11.89	11.30	299276EE	12.85	12.25
SC	NiCD	2200	298644EE	12.25	11.00	299399EE	13.19	11.95
D	NiCD	5000	298791EE	35.25	31.70	299541EE	36.19	32.65
AA	NiCD	700	298222EE	6.19	5.92	298978EE	8.75	8.07
AA	NiCD	1000	298370EE	8.09	7.34	299129EE	9.35	8.57
AA	NiMH	1800	298521EE	10.35	9.82	299241EE	12.85	11.78
SC	NiCD	2200	298679EE	12.25	11.02	299428EE	13.19	11.97
D	NiCD	5000	298821EE	35.25	31.70	299575EE	36.19	32.65
AA	NiCD	700	298302EE	6.49	5.90	299057EE	6.49	5.90
AA	NiCD	1000	298450EE	8.05	7.32	299209EE	8.05	7.31
AA	NiMH	1800	298601EE	13.09	11.78	299356EE	15.99	14.48
SC	NiCD	2200	298759EE	15.09	13.53	299508EE	16.05	14.48
D	NiCD	5000	298901EE	41.49	37.34	299655EE	37.09	33.37

4.8 Volts			Solder Tabs		Lead Wires			
Cell Size	Type	mAh	Jameco Part No.		Pricing			
			1	10	1	10		
AA	NiCD	700	298206EE	\$7.79	\$7.08	298951EE	\$8.75	\$8.03
AA	NiCD	1000	298353EE	10.69	9.62	299102EE	11.65	10.57
AA	NiMH	1800	298505EE	15.09	14.33	299250EE	16.05	15.28
SC	NiCD	2200	298652EE	15.45	13.90	299401EE	16.39	14.85
D	NiCD	5000	298804EE	44.49	40.05	299559EE	45.45	41.00
AA	NiCD	700	298249EE	7.79	7.06	298994EE	8.69	8.01
AA	NiCD	1000	298396EE	10.69	9.60	299145EE	11.65	10.55
AA	NiMH	1800	298548EE	15.09	14.32	299292EE	16.05	15.28
SC	NiCD	2200	298695EE	15.45	13.64	299444EE	16.39	14.85
D	NiCD	5000	298847EE	44.35	39.89	299591EE	45.29	40.84
AA	NiCD	700	298231EE	7.85	7.12	298986EE	8.75	8.07
AA	NiCD	1000	298388EE	10.69	9.62	299137EE	11.65	10.57
AA	NiMH	1800	298530EE	11.89	11.30	299284EE	16.05	15.28
SC	NiCD	2200	298687EE	15.45	13.91	299436EE	16.39	14.86
D	NiCD	5000	298839EE	44.49	40.02	299583EE	45.45	40.97
AA	NiCD	700	298273EE	7.79	7.08	299022EE	8.75	8.03
AA	NiCD	1000	298425EE	10.69	9.62	299170EE	11.65	10.57
AA	NiMH	1800	298572EE	15.09	14.32	299321EE	16.05	15.28
SC	NiCD	2200	298724EE	15.45	13.90	299479EE	16.39	14.85
D	NiCD	5000	298871EE	44.49	40.03	299621EE	45.45	40.98
AA	NiCD	700	298311EE	8.35	7.57	299065EE	8.65	7.85
AA	NiCD	1000	298468EE	10.79	9.73	299217EE	12.19	11.08
AA	NiMH	1800	298610EE	16.95	15.23	299364EE	16.65	14.97
SC	NiCD	2200	298767EE	16.95	15.23	299516EE	17.89	16.18
D	NiCD	5000	298919EE	47.19	42.46	299633EE	48.15	43.41

6.0 Volts			Solder Tabs		Lead Wires			
Cell Size	Type	mAh	Jameco Part No.	Pricing		Jameco Part No.	Pricing	
				1	10			
AA	NiCD	700	298329EE	\$9.25	\$8.00	299073EE	\$10.29	\$8.95
AA	NiCD	1000	298476EE	11.25	10.13	299225EE	13.25	11.08
AA	NiMH	1800	298628EE	18.85	16.07	299372EE	19.75	17.02
SC	NiCD	2200	298775EE	18.79	15.99	299524EE	19.75	16.94
D	NiCD	5000	298927EE	52.85	44.92	299680EE	53.79	45.87

7.2 Volts			Solder Tabs		Lead Wires			
Cell Size	Type	mAh	Jameco Part No.	Pricing		Jameco Part No.	Pricing	
				1	10			
AA	NiCD	700	298257EE	\$11.75	\$10.58	299006EE	\$12.75	\$11.53
AA	NiCD	1000	298409EE	15.99	14.40	299153EE	16.95	15.35
AA	NiMH	1800	298556EE	20.29	18.25	299305EE	21.25	19.20
SC	NiCD	2200	298708EE	23.15	20.81	299452EE	24.09	21.76
D	NiCD	5000	298855EE	66.49	59.83	299604EE	67.45	60.78

9.6 Volts			Solder Tabs		Lead Wires			
Cell Size	Type	mAh	Jameco Part No.	Pricing		Jameco Part No.	Pricing	
				1	10			
AA	NiCD	700	298265EE	\$15.69	\$14.12	299014EE	\$16.65	\$15.07
AA	NiCD	1000	298417EE	21.35	19.20	299161EE	22.29	20.15
AA	NiMH	1800	298564EE	26.35	23.70	299313EE	27.29	24.65
SC	NiCD	2200	298716EE	30.85	27.75	299461EE	31.79	28.70
D	NiCD	5000	298863EE	88.65	79.76	299612EE	89.59	80.71

Energizer® NiCAD Rechargeable Batteries for Cordless Phones				
Energizer cordless phone batteries offer long life and consistent reliable performance to get the most out of your cordless phone.				
249341EE: Replaces: AT&T 2422 / 3000 / 4051; GE TL96155; GE/Sanyo GES-PCH03; Hi-capacity B-702; Panasonic P-P303PA; RCA BT-12; Sony BP-T27; South Western Bell S60506; V-Tech 80-5074-00-00	249341EE	249332EE		
249332EE: Replaces: Sony SP-A2470 / SP-A9171 / SP-S9000 / SP-S9101 / SP-S9104	Part No.	Product No.		
Part No.	Product No.	Power (V/mAh)		
249341EE	P-3303	3.6 @ 300mAh .....	\$7.95	\$7.55
249332EE	ER-P276	3.6 @ 600mAh .....	13.95	13.25
Solar Pocket Charger				
Charge your batteries with free solar power. Inexpensive, easy and safe to use - no moving parts or cords. Re-energizes carbon-zinc, alkaline, nickel-cadmium (NiCAD), and nickel-metal-hydride (NiMH) batteries. Includes: Battery adapter for AA, C, and D type batteries.		<b>SALE</b>		
Part No.	Description	Size (LxWxD)		
215239EE	Solar pocket charger	3.6" x 3.1" x 1.5"	\$26.35	
Rechargeable Batteries Application Handbook				
Butterworth-Heinemann Represents the first widely available compendium of information needed by design professionals responsible for using rechargeable batteries. This handbook introduces the most common forms of rechargeable batteries, including their history, the basic chemistry that governs their operation, and common design approaches. The introduction also exposes the reader to common battery design terms and concepts. (290 pages, 1998)				
Part No.	Description	Price		
305171EE	Rechargeable batteries handbook .....	\$43.95		

## Zinc Chloride, Alkaline, Lithium and NiCAD Batteries

### Zinc Chloride

Part No.	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
151087EE	AA	1	AA	1.5	700	Barrel Pressure	1.9" L x 0.545" Dia.	\$2.22	\$2.20	\$1.18
151095EE	GF6F22	2	9V	9	300	—	1.7" L x 1.0" W x 0.67" Dia	1.25	.99	.79

### Alkaline

Part No.	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
249181EE	LR031.5V	3	AAA	1.5	—	3-pack	1.645" L x 0.404" Dia.	\$1.49	\$1.27	\$0.95
150965EE	840	4	—	4.5	600	Batt. Pack w/Con. (Apple®)	1.14" L x 0.73" W x 0.96" H	9.95	8.96	8.06
198791EE	MN1604	2	9V	9	500	—	1.73" L x 1.03" W x 0.67" H	2.85	2.55	2.29



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

### Lithium & Lithium Ion

Part No.	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
240258EE	CR123A	1	—	3	1300	Photo/Computer	1.36" L x 0.65" Dia.	\$2.65	\$2.45	\$2.35
33371EE	TL5101P	2	1/2 AA	3.6	850	Barrel w/Leads (Clock/Mem.)	0.93" L x 0.56" Dia.	5.79	5.27	4.45
33398EE	TL5104P	3	AA	3.6	1900	Barrel w/Leads (Clock/Mem.)	1.88" L x 0.56" Dia.	5.95	5.49	5.19
146114EE	TL2100S	4	AA	3.6	1900	Barrel Pres. (Clock/Mem.)	1.91" L x 0.56" Dia.	6.95	6.29	5.65
240186EE	CR1616	—	Coin Cell	3	55	Clock/memory/watch	0.07" Dia. x 0.61" Th.	.69	.63	.60
11789EE	CR2325	5	Coin Cell	3	165	Clock/memory/watch	0.91" Dia. x 0.13" Th.	1.65	1.47	1.25
14162EE	CR2032	—	Coin Cell	3	180	Clock/memory/watch	0.79" Dia. x 0.13" Th.	1.25	1.12	.94
126754EE	TL5101S	6	Sub-AA	3.6	850	Macintosh®	0.95" L x 0.56" Th.	6.95	6.29	5.65
240266EE	ER14250	7	Sub-AA	3.6	1000	Consumer Tip	1.00" L x 0.55" Dia.	3.99	3.89	3.81
263951EE	ER14335	8	Sub-AA	3.6	1450	With solder tabs	1.30" L x 0.55" Dia.	4.59	4.43	4.19
240282EE	ER14335	9	Sub-AA	3.6	1450	Consumer Tip	1.30" L x 0.55" Dia.	4.59	4.45	4.19
240303EE	ER14505	10	AA	3.6	2400	Consumer Tip	2.00" L x 0.55" Dia.	5.19	4.85	4.55
263935EE	ER14505	11	AA	3.6	2100	With solder tabs	2.00" L x 0.55" Dia.	4.99	4.75	4.52
263943EE	ER14505	12	AA	3.6	2100	With axial leads	2.00" L x 0.57" Dia.	5.35	4.99	4.70
240320EE	ER17335	13	Sub-A	3.6	1450	Consumer Tip	1.30" L x 0.67" Dia.	5.25	4.75	4.39
240151EE	ER34615	14	D	3.6	16500	Consumer Tip	2.40" L x 1.34" Dia.	15.05	14.49	13.95



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20



Fig. 21



Fig. 22



Fig. 23



Fig. 24



Fig. 25



Fig. 26



Fig. 27



Fig. 28

### NiCAD - Rechargeable

Part No.	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
----------	-----------------	--------	------	-------	-----	----------------------	------------	---	----	----

244540EE	AAA-204-CT	15	AAA	1.2	240	Consumer Tip	1.70" L x 0.40" Dia.	\$1.89	\$1.85	\$1.80
244486EE	AA-600	16	AA	1.2	600	Flat Top	1.90" L x 0.55" Dia.	1.25	1.22	1.19
261657EE	AA-700-CT	17	AA	1.2	700	Consumer Tip	1.90" L x 0.55" Dia.	1.37	1.25	.96
244507EE	AA-1000	16	AA	1.2	1000	Flat Top	1.90" L x 0.55" Dia.	2.65	2.43	2.33
244371EE	2/3A-650	18	2/3A	1.2	650	Flat Top	1.10" L x 0.65" Dia.	1.79	1.65	1.60
244363EE	1/3C-700	—	1/3C	1.2	700	Flat Top	0.87" L x 1.00" Dia.	2.59	2.33	2.10
244654EE	SC-1900	19	Sub-C	1.2	1900	Flat Top	1.70" L x 0.89" Dia.	3.69	3.23	3.08
244689EE	C-2500	20	C	1.2	2500	Flat Top	1.90" L x 1.00" Dia.	5.15	4.86	4.65
244451EE	4/5SC-1250	—	4/5SC	1.2	1250	Flat Top	1.30" L x 0.89" Dia.	2.85	2.56	2.35
244558EE	D-5000-CT	21	D	1.2	5000	Consumer Tip	2.40" L x 1.30" Dia.	7.79	7.60	7.45

**More Batteries Located On Our Website - [www.Jameco.com/Batteries](http://www.Jameco.com/Batteries)**

## Long-Lasting Rechargeable NiMH Batteries & Chargers



Why buy & throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCAD batteries, so they're ideal for power-hungry devices like digital cameras and camcorders.



### NiMH Batteries

Part No.	Description	1	10
231095EE	2x AAA, 600mAh	\$6.95	\$6.25
231087EE	4x AA, 1600mAh	13.95	12.55
231116EE	2x C, 3000mAh	11.49	10.34
231124EE	2x D, 7000mAh	19.59	17.65
231108EE	1x "9V", 150mAh	8.39	7.95

## Eveready® Energizer® Alkaline Batteries **NEW**



Energizer® and the Energizer Bunny® are registered trademarks of the Eveready Battery Company, Inc.

- Single-use Energizer® alkaline batteries for heavy drain and frequent use applications
- Prepackaged: order in increments of 4

Part No.	Size	4	8	12
198707EE	AA — NEW	\$.64	\$.63	\$.62
198715EE	AAA — NEW	.67	.65	.62

Part No.	Size	1	4
198731EE	9-volt — NEW	\$1.89	\$1.85
215845EE	D — NEW	1.12	1.09

**More Batteries @ [www.Jameco.com](http://www.Jameco.com)**

## NiCAD & NiMH Rapid Charger



**TYSONIC**

Why buy & throw away hundreds of batteries? Now you can reuse and recharge your NiCAD and NiMH batteries and save money. Charger is portable so you can recharge your batteries in your car, office or home, in a fraction of the time it takes standard chargers. Includes 4 AA NiMH batteries, wall adapter, and cigarette adapter. Also includes discharge function.

Part No.	Description	Price
244638EE	AA or AAA charger — NEW	\$19.95

## We'll Beat Their Prices by 10%!

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost. Just call us!

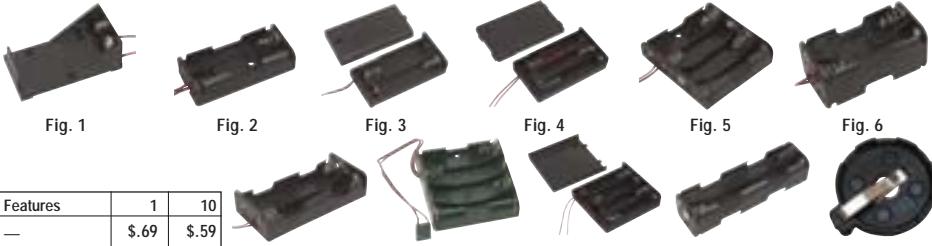
## Lead Acid Batteries



Part Number	Product Number	Nominal Voltage	Amp-Hrs.	Cross Reference				Terminal Size	Size (L" x W" x H")	Wt. (lbs.)	Pricing	
				Panasonic	YUASA	Eagle Picher	Tempest				1	10
264014EE	TY-6-4.5	6	4.5	LCR6VP	NP4-6	CF16V4	TR-4-6	Quick Connect 0.187"	2.8 x 1.9 x 4.0	1.9	\$8.99	\$7.89
264022EE	TY-6-10	6	10.0	LCR6V10P	NP10-6	CFM6V10	TR10-6	Quick Connect 0.187"	5.9 x 2.0 x 3.9	4.6	14.45	12.97
264031EE	TY-12-2.3	12	2.3	LCR12V2.2P	NP2.3-12	CF12V1.5	TR2.3-12	Quick Connect 0.187"	7.0 x 1.3 x 2.4	2.1	15.39	14.59
264049EE	TY-12-4.5	12	4.5	LCR12V4PF	NP412	CF12V4	TR4-12	Quick Connect 0.187"	3.5 x 2.8 x 4.0	3.8	15.79	14.55
264057EE	TY-12-7	12	7.0	LCR12V7.2BP	NP712	CFM12V65	TR7.5-12	Quick Connect 0.187"	5.9 x 2.6 x 3.7	5.6	16.95	15.15
264065EE	TY-12-12	12	12.0	PS12120	—	CFM12V12	TR12-12	Quick Connect 0.187"	5.9 x 3.9 x 3.9	9.0	30.65	28.25
264073EE	TY-12-18	12	18.0	LCR12V17BP	NPG18-12	CF12V18	TR18-12	Quick Connect 0.472"	7.1 x 3.0 x 6.6	13.3	32.85	28.15

## Battery Holders, Snaps and Clip

Eliminate battery retention problems in portable DC power applications and products. High-retention snaps are made from special materials that maintain retention properties longer than conventional snaps. They can be with leads, or attached to battery holders.



## 9-Volt Battery Snaps and Clip

- Use with standard "9 volt" batteries
- Fully insulated; nickel-plated brass contacts
- Leads are color-coded, stripped and pre-tinned
- Snap: male outer dia. = 0.225"
- Female inner dia.: 0.215" \* 10 piece minimum



Part No.	Mfr. Cross Ref.	Fig.	Cells	Connector	Sides	Features	1	10
216080EE	BH-321-2A	2	2-AA	Wires	Single	—	\$.69	\$.59
216119EE	SBH-321-1AS	3	2-AA	Wires	Single	Cover/switch	.79	.71
216143EE	SBH-331-AS	4	3-AA	Wires	Single	Cover/switch	.99	.79
105857EE	*	8	4-AA	Wires	Single	Wires w/ conn.	.89	.75
216178EE	BH-343-1A	6	4-AA	Wires	Dual	—	.65	.55
216186EE	SBH-341-1AS	9	4-AA	Wires	Single	Cover & switch	1.09	.89
216258EE	BH-382-B	10	8-AA	Snaps	Dual	—	1.19	.99
216311EE	SBH-431-1AS	4	3-AAA	Wires	Single	Cover & switch	.79	.69
216320EE	BH-441-A	5	4-AAA	Wires	Single	—	.89	.80
216354EE	BH-221-A	2	2-C	Wires	Single	—	1.09	.98
216362EE	BH-242-1A	7	4-C	Wires	Single	—	1.39	1.29
216389EE	BH-121-1A	2	2-D	Wires	Single	—	.89	.75
216418EE	BH-143-1A	5	4-D	Wires	Single	—	1.15	.89
216426EE	BH-9V-A	1	1-9V	Wires	Single	—	.79	.69
38535EE	2S2032	11	1-CR2032	PC Mount	Coin Cell	—	.59	.53

\* Battery holder used in many personal computers

Part Number	Fig.	Description	Dimensions (in.)		Pricing		
			L	W	H	1	10
11279EE	1	3", 26 AWG, 6 prong battery snap	1.0	.50	—	\$.25	\$.22
105793EE	2	Battery holder clip	.63	.71	1.2	.28	.23
109153EE	3	6", 26 AWG, 6 prong battery snap	1.0	.50	—	*	.17
101469EE	3	10", 26 AWG, 6 prong battery snap	1.0	.50	—	.29	.25
216451EE	4	6", 26 AWG, 6 prong battery snap	1.0	.50	—	.34	.30

## Universal NiCAD Battery Charger

Automatic battery charger for NiCAD batteries ranging from 1.2 to 15V.

- Charges NiCAD batteries with voltages ranging from 1.2V to 15V
- Automatic charging voltage
- Charging current: adjustable in 7 ranges from 5mA to 600mA
- LED indicator for charging control
- Requires 18V to 20VAC @ 600mA power supply (recommend P/N 121216EE, see [www.Jameco.com](http://www.Jameco.com))
- Board size: 2.2" L x 2.2" W

**NEW**



Part No.	Product No.	Description	Price
314034EE	B079	— <b>NEW</b> Universal NiCAD charger kit	\$15.95

## 1 1/4" x 1/4" Standard Fuses

### Fast Acting Fuses (250V)

#### AGC/3AG Fuses



- Prepackaged: order in increments of 10 or 100

Part No.	Amps	Manufacturer	10	100
69403EE	250mA	Various	\$.20	\$.18
10410EE	500mA	Various	.20	.18
10372EE	1 amp	Various	.20	.12
10381EE	2 amp	Various	.20	.12
69438EE	3 amp	Various	.20	.12
197544EE	4 amp	Various	.22	.20
10401EE	5 amp	Various	.22	.20
197552EE	6.3 amp	Various	.22	.20
69462EE	10 amp	Various	.25	.22
186301EE	16 amp	Various	.25	.22

### Slow Blow Fuses (250V)

#### MDL/3AG Fuses



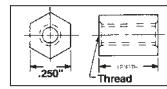
Part No.	Amps	Manufacturer	1	10
25638EE	1 amp	Various	\$.69	\$.59
25671EE	5 amp	Various	.55	.44
69569EE	10 amp	Various	.75	.65

## Aluminum & Brass Threaded Standoffs

† Finish: Iridite (clear)<sup>1</sup> per MIL-C-5541-D

- Prepackaged: order in increments of 10

### .250" Hex Female 4-40 Thread .250" Hex



Part No.	Metal <sup>†</sup>	Hex Length	1	10
139192EE	Alum <sup>†</sup>	.250"	.*	\$.16
77500EE	Alum <sup>†</sup>	.375"	.*	.20
134762EE	Alum <sup>†</sup>	.437"	.*	.21
108370EE	Alum <sup>†</sup>	.500"	.*	.25
77518EE	Alum <sup>†</sup>	.625"	.42	.35
133604EE	Alum <sup>†</sup>	.750"	.39	.35

### .187" Hex Male/Female 4-40 x .187" Jack Screws and Hex Nut

Part No.	Description (Brass)	1	10
169931EE	.275" L jack screws	.*	\$.15
172603EE	.315" L jack screws	.*	.14
108986EE	.515" L jack screws	.55	.50

**More Fuses and Hardware @ [www.Jameco.com](http://www.Jameco.com) — Log on today!**

## Lead Acid Battery Charger Kit

Charge and maintain both open and sealed type 6V or 12V lead-acid batteries. Can be hooked-up to the unit for an indefinite time, and will be kept in optimal condition.

Selectable battery type and charge current, while the charging process is fully automatic. Requires an 18V/25VA transformer (not included; P/N 149956EE see web).

- Charge current: 0.3 or 1 amp (selectable)

Part No.	Product No.	PCB Dimensions	Price
239521EE	K8012	3.8" L x 5.5" W x 1.6" H	\$39.95

**More Kits on pages 92-103**



## Solar Cell or Alternative Power Battery Charger Regulator

Designed for efficiently charging 12V batteries using solar cells or alternative power rated up to 5Amps.

- Input: 14V to 22V (open circuit voltage), nominal – 12V
- Maximum input current: 5A
- Inrush voltage: battery voltage < approx. 13.2V
- Interrupting voltage: battery voltage > approx. 13.9V
- Own power consumption: < 3.9mA (with LED on)
- Size: 2.8" L x 2.0" W x 1.1" H



**NEW**

Part No.	Description	Price
314211EE	Solar cell battery charger — <b>NEW</b>	\$16.95

## Fuse Clips



- Low profile
- Low contact resistance
- Withstands shock and vibration
- Prepackaged: order in increments of 10 or 100

Part No.	Description	10	100
102859EE	5mm, front leads	\$.12	\$.09
102841EE	1/4", front leads (10A)	.09	.08

## In-Line Fuse Holders



- Built-in spring ensures good fuse connection
- 1 1/4" x 1/4" standard
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108783EE orange

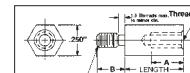
Part No.	AWG	Wire Lgths	Body Size(L)	Body Color	1	10
102867EE	20	3/3"	2.2"	White	\$.65	\$.58
151917EE	18	6/6"	2.4"	White	.99	.85
108783EE	16	21/26"	2.2"	Black	.99	.87
108791EE	14	19/25"	2.5"	Black	1.59	1.45

## Hardware



### .250" Hex Male/Female

4-40 Thread  
(Thread A: .250"; B: .187")



Part No.	Metal <sup>†</sup>	Hex Length	1	10
77585EE	Alum <sup>†</sup>	.250"	\$.41	\$.37
111755EE	Alum <sup>†</sup>	.500"	.49	.44
139221EE	Alum <sup>†</sup>	.750"	.43	.39
139230EE	Alum <sup>†</sup>	1.00"	.49	.44
128565EE	Alum <sup>†</sup>	1.25"	.59	.53

**More @ [www.Jameco.com](http://www.Jameco.com)**

## 200 Piece Spring Assortment

This kit contains approximately 200 springs with 20 different types, compression and tension ratings in a clear plastic case. They range from smallest which is about 10mm long to the longest 70mm long.

Part No.	Description	Price
314413EE	200-piece spring assortment — <b>NEW</b>	\$7.29

## SAE Hardware

- Zinc-plated steel



Prepackaged: order in increments of 100 or 1000

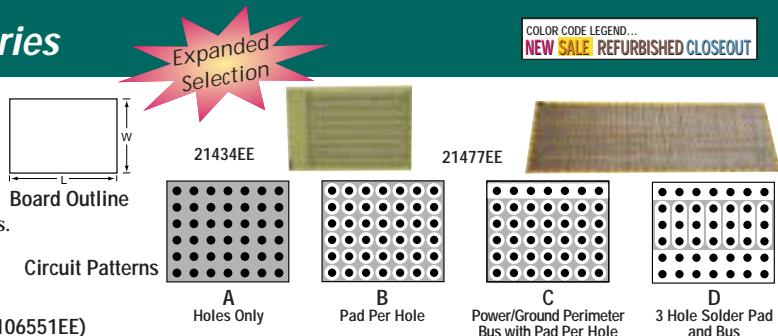
Slotted Pan Head Machine Screws			
Part Number	Screw Size	Thread	Length (in.)
38172EE	2-56	Std	.250
40951EE	4-40	Std	.250
Hex Nuts			
38164EE	2-56	Std	.183
40942EE	4-40	Std	.243

**General Purpose Prototyping Boards**

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- PCB material: epoxy glass
- Connector I/O or edge: None

See pg 54 for PCB mounting enclosures and hardware (recommend P/N 106551EE)



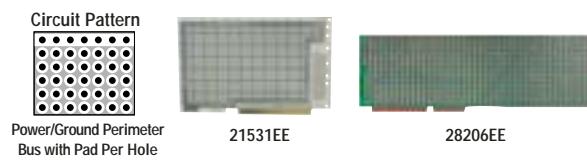
Part Number	Product Number	Size (W" x L")	Fits Enclosure(s) (see page 41)	Circuit Pattern	Hole Pads	# Holes x Dia. †	Power/Ground Busses	# Mounting Holes x Dia.	Weight (lbs.)	Pricing	
										1	10
105099EE	2855PCB	1.60 x 2.70	18921EE	B	Single-sided	288 x .035"	None	2 x .115"	.02	\$5.25	\$4.73
105101EE	5002PCB	1.50 x 3.50	11957EE	C	Single-sided	365 x .038"	4	2 x .140"	.02	6.95	6.25
28177EE	PCB1	2.42 x 4.10	18913EE	C	Plated through	674 x .040"	None	4 x .120"	.04	5.95	5.35
105136EE	2320PCB	3.30 x 4.50	11885EE	C	Single-sided	1266 x .035"	4	4 x .140"	.06	9.95	8.95
105161EE	2852PCB	3.60 x 7.00	18905EE, 11973EE	B	Single-sided	2225 x .035"	4	4 x .140"	.10	14.95	13.45
206586EE	2746APCB	4.30 x 6.80	209349EE	C	Single-sided	2550 x .042"	5	4 x .140"	.07	10.95	9.86
21434EE	JE401(8001)	4.50 x 6.50	18868EE	B/D	Single-sided	2360 x .042"	2	None	.12	21.95	19.76
21451EE	JE405(8003)	4.50 x 6.50	18868EE	C	Single-sided	2360 x .042"	1	None	.12	19.95	17.95
43140EE	64P44XXXX* — NEW	4.50 x 6.50	18868EE	A	Drilled only	2860 x .042"	None	None	.09	5.99	5.65
52943EE	84P44WE — NEW	4.50 x 8.50	18876EE	A	Drilled only	3740 x .042"	None	None	.15	9.39	8.79
37612EE	169P44XXXX* — NEW	4.50 x 17.0	N/A	A	Drilled only	7524 x .042"	None	None	.25	11.19	10.39
21477EE	JE407(8006)	5.00 x 13.25	N/A	B	Plated through	6063 x .038"	None	8 x .120"	.28	41.19	37.07
206594EE	2747APCB	5.50 x 8.00	209357EE	C	Single-sided	3906 x .042"	5	4 x .140"	1.0	14.99	13.49
105187EE	2507PCB	6.10 x 8.80	18876EE	C	Single-sided	4771 x .035"	7	8 x .140"	.21	29.95	26.95
37621EE	169P84WE	8.50 x 17.0	N/A	A	Drilled only	14448 x .042"	None	None	.53	23.95	22.75

† All 0.042" diameter hole boards use terminals T44, T49, and T421 (see website) \* PCB material: phenolic

**ISA Printed Circuit Prototyping Boards**

Printed circuit prototyping boards for virtually any application – including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precise standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

- Edge contacts: gold



Part Number	Product Number	Description	Size (Inches) W x L	Terminals (below)			I/O Connector (not included)	Hole Pads	# Holes x Dia.	Power/ Ground Bus	# Mounting Holes x Dia.	Weight (lbs.)	Pricing	
				T44	T49	T421							1	10
21531EE	JE417	PC/XT 8-bit	4.2 x 6.50	yes	yes	yes	D-sub 9, 15, 25 & 37	Plated through	2126 x .042"	2	8 x .120"	.12	\$19.95	\$16.99
28206EE	PCB4	PC/XT/AT 16-bit	4.25 x 13.13	yes	yes	yes	D-sub 9, 15 & 25	Plated through	4890 x .042"	2	4 x .120"	.23	24.95	23.69

**Wire Wrap and Push-In Terminals****For .042" Diameter Holes**

- Material: copper alloy
- Prebagged 100 pcs.

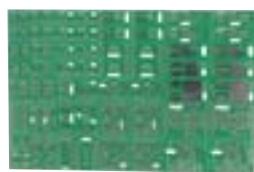
Part Number	Product Number	Description	Overall Length (in.)	Post Size (in.)	Shoulder	Height Above .062" Board	Length Below .062" Board	100 pc. units	
								1	10
34147EE	T421	Push-In micro-klip terminals	.36"	.032" x .045"	—	.200	.097	\$7.29	\$6.95
34155EE	T44	Minwrap wiring terminals (two prong with square tail)	.69"	.025" sq.	.045"	.065	.530	7.99	7.49
34163EE	T49	Klipwrap wiring terminals (three prong with square tail)	.83"	.025" sq.	.045"	.200	.530	11.79	11.19

**BELLIN DYNAMIC SYSTEMS, INC.**

**Surface Mount Proto Boards**

Prototyping SMT circuit boards has been tedious and time-consuming because surface mount devices are so small. Now there is an easy, cost-effective and versatile Snap-Apart solution from Bellin Dynamic Systems.

- Quality silk-screened and solder-masked boards
- V-groove scoring between elements for smooth straight edges
- Compatible w/ .100" single or dual row male headers (see pg 31)
- Size: 7.6'L x 5.0"W
- Board thickness: 0.031"
- See our website ([www.Jameco.com](http://www.Jameco.com)) for additional specifications



215491EE  
NEW

**PLCC Prototype Adapters**

PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with 0.25" long leads.

- PCB construction
- Gold-plated round pins
- Silkscreen numbers identify pin numbers in groups of 5 and 10
- Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover



73541EE  
NEW

Part No.	Pins	Dimensions (L x W)	Price
73541EE	44 — NEW	2.3" x 1.6"	\$11.95
73568EE	84 — NEW	4.3" x 1.9"	23.95

**Jameco is committed to serving you. Drop us a line at: [AtHome@Jameco.com](mailto:AtHome@Jameco.com)**

We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need.

*microEngineering Labs*

## "PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes



**Includes:** Documentation sheet with schematic, suggested parts and placement

**PICProto 18, 18L:** For all 18-pin PICs including PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

Part No.	Description	Size (L" x W")	Price
132644EE	PICProto 18	3.0 x 1.5	\$9.95
176891EE	PICProto 18L	3.6 x 4.1	19.95
<b>PICProto 3:</b> For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252			
132636EE	PICProto 3	3.0 x 3.0	\$14.95
<b>PICProto 64:</b> For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452			
132652EE	PICProto 64	4.0 x 3.0	\$16.95

*microEngineering Labs*

## EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs.



- Interactive software for Windows and DOS
- Command line operation for automated, non-interactive programming

**Requires:** Two 9V batteries or AC adapter (below) **Includes:** Assembler software

Part No.	Description	Price
132679EE	EPIC Plus PICmicro programmer	\$59.95
136397EE	8/18/20-pin ZIF adapter	34.95
132610EE	40/28-pin ZIF adapter	34.95
162317EE	AC wall adapter (16VDC/500mA, details on pg 38)	7.95
67256EE	6' DB25 cable (details on pg 79)	6.45

## Circuit Boards and Accessories

### DATAN Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork.



Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing & etching. No camera or darkroom is required.

Part No.	Product No.	Wt. (lbs.)	1	10
16731EE	12-750*	4.6	\$39.95	\$36.95

### DATAN Direct Etch PCB "Starter" Set



**Includes:** 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIP, patterns, lines and 1/32" & 1/16" etch resist tape.

Part No.	Product No.	Wt. (lbs.)	1	10
70412EE	ER1	0.7	\$11.95	\$10.95

### DATAN Dry Concentrated Etchant



- Makes one pint of etch solution

Part No.	Prod. No.	Description	1	10
70201EE	ER3	Dry etchant	\$3.95	\$3.49

COLOR CODE LEGEND...

NEW SALE REFURBISHED CLOSEOUT

NEW SALE REFURBISHED CLOSEOUT

*microEngineering Labs*

## PICBasic and PICBasic Pro Compiler

Converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.



132661EE

- Compatible with most PICmicro MCUs
- I2C instructions to access external serial EEPROMs
- Use in DOS or Windows (includes Windows editor/DE software)

### 132661EE: PICBasic Compiler

- Expanded BASIC Stamp 1 compatible instruction set
- Supports PIC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx, 84, 92x, and PIC16C88x microcontrollers
- May use up to 2k of code space

### 150543EE: PICBasic Pro Compiler

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2k
- Bit, byte, word arrays
- Real If... Then... Else... Endif
- Hierarchical expression handling
- Built-in LCD support
- MPLAB/MPASM/ICE compatibility
- Supports 12Cxxx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

Part No.	Description	Price
132661EE	PICBasic compiler	\$99.95
150543EE	PICBasic Pro compiler	249.95

### microEngineering Labs LAB-X1 Experimenter's Module Board

A pre-assembled experimenter's platform, providing an assembled testbed containing the circuitry commonly used with PICmicro microcontrollers. Projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.



- 40-pin ZIF socket for PICmicro MCU (not included, PIC16F877-20P recommended)
- Jumper selectable oscillator from 4MHz to 20MHz
- Reset button
- 16 switch keypad
- 3 potentiometers
- LED bargraph
- 2 lines x 20 characters LCD module
- Speaker
- 2 RC servo connectors
- RS232 interface
- Socket for RS485 interface (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector
- Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector

Requires: AC adapter (below)

Part No.	Description	Price
169113EE	LAB-X1 Experimenter Board	\$199.95
176882EE	PIC16F877-20P microcontroller	9.49
127976EE	AC adapter (details on web)	4.75

### Pre-Sensitized Circuit Boards & Developer



- Pre-coated circuit board
- Size: 3.0" L x 4.0" W x 1/16" T

**Includes:** Instructions

Part No.	Description	1	10
156751EE	Single sided	\$4.95	\$4.49
156742EE	Double sided	6.49	5.85
156734EE	4 oz. Pos. developer*	6.95	5.95

\*Hazardous material. UPS ground to continental U.S. only

**Celebrating 30 years of commitment to the Best Values from around the world.**

[www.Jameco.com](http://www.Jameco.com)
**Quality Components for Less.**

 The Best Values  
We search the world to find you the best values!

 The Lowest Prices  
We guarantee the lowest price in any catalog.

 60% More Products  
We've added 60% in the last year.

Fig. 1



Fig. 2



Fig. 3



Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W")	Fig.	Wt. (lbs.)	1	10
169279EE	PCBS3X6	Single side	3.0 x 6.0	3	0.1	\$3.49	\$3.15
169287EE	PCBS6X6	Single side	6.0 x 6.0	2	0.2	4.95	4.49
169295EE	PCBS12X12	Single side	12.0 x 12.0	1	0.5	13.49	12.14
169308EE	PCBD3X6	Double side	3.0 x 6.0	3	0.1	5.25	4.73
169316EE	PCBD6X6	Double side	6.0 x 6.0	2	0.2	7.95	7.15
169324EE	PCBD12X12	Double side	12.0 x 12.0	1	0.7	17.95	15.95

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

**Solderless Breadboards**

20757EE

20773EE

20790EE

20811EE



20600EE



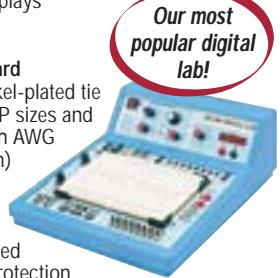
20722EE

These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681EE (right).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry
- 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Use to breadboard and debug circuit designs
- Ideal for high frequency and low noise circuits
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- One-year warranty
- Components are easily interconnected using 20-28 AWG wire (P/N 19289EE & 20079EE, right)
- Some models feature heavy-duty aluminum backings (JE24, JE27) \* WBU5 and JE series do not interconnect

**Attention Educators! Buy jumper wire (right) in bulk and SAVE! (see Hook-up Wire on pg 33)**

Part Number	Product Number*	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L x W (In.)	Baseplate Size L x W (In.)	Weight (lbs.)	Pricing	
									1	10
20600EE	JE21	1	2	400	0	3.3 x 2.1	—	0.13	\$5.25	\$4.73
20669EE	JE22	1	0	630	0	6.5 x 1.4	—	0.20	5.49	4.95
20722EE	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	9.39	8.45
194298EE	JE37	1	2	840	0	6.9 x 2.4	—	0.25	9.95	8.95
194255EE	JE38	1	2	970	4	2.9 x 5.6	4.9 x 6.3	0.50	16.95	15.25
194271EE	JE34	2	3	1,560	3	6.5 x 4.0	8.5 x 4.7	0.78	15.95	14.39
20757EE	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	13.65	12.28
136901EE	WBU504*	2	3	1,855	4	5.5 x 5.5	7.4 x 6.3	0.90	22.99	20.99
20773EE	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	19.95	17.95
20790EE	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	27.29	24.56
20811EE	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	33.59	30.23

**Digital Design Lab**

Our most  
popular digital  
lab!

- Two 7-segment displays (digit height: 0.3")
- One-year warranty

**Solderless Breadboard**

- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads
- 1580 tie points

**DC Power Supplies**

- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A
- Fixed power supply: ±5VDC @ 1.0A

**Function Generator (5 ranges)**

- Frequency range: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vp-p variable
- Triangle wave output: 6Vp-p fixed
- Square wave output: ±5V fixed
- DCV digital multimeter
- Size: 10.6" W x 13.3" D x 5.0" H
- Weight: 8.1 lbs.

**Includes:** Power cord and manual

Part No.	Description	Price
75838EE	Digital lab	\$276.95

**Over 99% of our products are in stock!**

**Digital-Analog Design Lab**

International  
120/220VAC  
Switchable

**Solderless Breadboard**

- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

**DC Power Supplies**

- Variable DC output: 0 to +15V & 0 to -15V @ 500mA; Fixed DC output: +5VDC@1A; -5VDC@300mA
- Input power: 120/220VAC @ 50-60Hz (switchable)

**Function Generator**

- Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vpp variable
- Triangle wave output: 0-6 Vpp variable
- Square wave output: 0-8 Vpp variable

**Other features:**

- 2 variable resistors: VR1=1kΩ, VR2=100kΩ
- 8 data switches • 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: A, A, B, B)
- 2 banana sockets, 2 BNC jacks
- One-year warranty
- Two 7-segment LED displays (digit height: 0.3")
- 8 red LEDs with separate input terminals
- Size: 12.8" W x 9.8" D x 3.7" H • Weight: 8.5 lbs.

**Includes:** Power cord and manual

Part No.	Description	Price
136266EE	Digital analog lab	\$379.95

**Wire Jumper Kit (350 pcs.)**

19289EE

- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers

**19289EE: 350-piece wire jumper kit**

• Handy, durable, clear plastic case

**20079EE: 350-piece refill only for 19289EE**

Part No.	Description	Price
19289EE	Wire jumper kit	\$15.95
20079EE	Refill for 19289EE	10.99

**Reinforced Jumper Wires**

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue

Part Number	Mfr. Cross Ref. No.	Length (mm / inch)	1	10
126359EE	JW50	50 / 1.97	\$3.95	\$3.49
126341EE	JW100	100 / 3.94	4.95	4.49
126324EE	JW200	200 / 7.87	5.19	4.69

**AC/DC Power Supply****Output Specifications:**

- +5VDC @ 1A; -5V @ 300mA fixed;
- 0 to +15VDC @ 500mA variable;
- 0 to -15VDC @ 300mA variable;
- 12-6-0-6-12 lapped VAC, 300mA fixed

**International 120/220VAC Switchable**

- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Compact and lightweight
- For both digital and analog circuits
- Compatible with test leads P/N 77841EE, pg 67
- Size: 7.4" W x 5.5" D x 2.6" H
- Weight: 5.5 lbs.

Part No.	Description	Price
77681EE	Power supply	\$119.95

**Powered Project Board**

- Solderless breadboard with 2420 tie points

- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA

- Back panel has ground terminal

- Edge plate for non-DIP size components

- Input power: 120/220VAC @ 50-60Hz (switchable)

- Replacement fuse: P/N 103907EE, pg 49

- Breadboard size: 7.4" L x 6.8" W

- Enclosure size: 9.8" L x 8.0" W x 2.6" H • Wt.: 6.8 lbs.

**Includes:** Power cord

Part No.	Description	Price
136258EE	Powered breadboard	\$99.95

**EPROM Eraser and Accessories**

- Erases 1 chip in 7 minutes

- Conductive foam liner eliminates static build-up

- UV intensity: 6.5mW/cm<sup>2</sup>

- Size: 6.8" L x 1.5" W x 2.3" H

- Weight: 0.8 lbs. • One-year warranty

**Requires:** Four AA batteries (not included)

Part No.	Description	Price
66042EE	Portable eraser	\$54.95
13864EE	Foam (12"x24"x0.25")	9.29

## XELTEK 40-Pin Low-Cost Universal Programmer

- Supports 2500+ devices, including most E(E)PROM, Series E(E)PROM & FLASH
- Printer Port Interface
- Programs GALs, PEELs, PALCE, Microcontrollers, PIC16Cxx/17Cxx, COP87xx, and PSD3XX
- Tests TTL/CMOS Test, Memory Test, Vector Test, Test Pattern Edit, Auto Identify TTL/CMOS Device
- Universal ZIF socket that accepts up to 40 pins
- Load and save file in binary, Intel (extended) Hex, Motorola S or Tektronics (extended) Hex format. Multiple load, format conversion, relocation etc.
- HEX-ASCII edit, fuse map edit, checksum, swap, vector table edit
- Supports Windows® 95/98/ME

**Includes:** Power adapter, parallel cable, user's guide and CD-ROM software

Part No.	Size (LxWxH)	Wt. (lbs.)	Price
231183EE	7.8" x 5.5" x 0.8"	4.0	\$244.95



## Universal Programmer Pocket Size & Battery Powered

### Parallel Port Interface

A unique ASIC pin driver was designed specifically for this latest generation programmer, enabling the first true universal input/output capability.

- Supports 5200+ devices: 8-bit and 16-bit EPROM, EEPROM, FLASH EPROM, Serial EEPROMS, all Microcontrollers, GAL/PAL/CE without adaptors
- Support for ultra-low voltage devices down to 1.3V
- Three separately adjustable voltages for all 40-pins
- High speed data transfer: 27C256 read/verify = 2 seconds; program = 8 seconds
- Integrated editor's many features allow user to edit device data, which can be loaded or saved in INTEL HEX, Motorola S or binary format
- Operates on AC power adapter or 6 NiMH batteries
- Fully compatible with Windows® 95/98/ME/NT/2000/XP

**Includes:** Printer port data cable, power adapter & CD

**System requirements:** PC with Pentium® CPU

Part No.	Size (LxWxH)	Wt. (oz.)	Price
226309EE	4.5" x 3.1" x 1.3	7.5	\$369.95



## Flash Writer/Programmer with USB Interface

- Programs 8-bit FLASH serial ICs via USB cable on Windows® 9x/2000/XP
- High speed: Only 22 seconds to blank check, program, and verify MXIC MX29F040
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronix
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports Flash EPROM, EPROM and EEPROM

**Includes:** USB cable, 12V @ 500mA adapter, CD-ROM software and manual

Part No.	Description	Price
225947EE	Leaper 3D	\$199.95



## Versatile, Production Quality Universal Programmers

- Parallel port interface
- 3000+ device types supported
- Supports EPROM, flash, microcontroller, Serial (E)EPROM, EPLD, PALCE, GAL, PEEL
- Built-in editor for both buffer date and test vectors
- Supports JEDEC, Intel Hex, Motorola S Records, Binary and ASCII file formats with File LOAD/SAVE command
- Built-in macro commands for programming

**Includes:** 01/02/03 personality modules, parallel cable, wall adapter, disk & manual  
**System requirements:** IBM PC, XT, AT, 386, 486, Pentium®, hard disk, 512k RAM, standard parallel port, MS-DOS 2.11 or higher

Part No.	Description	Sockets	Price
207733EE	MEGAMAX	48-pin ZIF	\$379.95
207781EE	MEGAMAX4G	48-pin ZIF(1)/ 32-pin ZIF (3)	429.95



207781EE  
EX TOOLS  
MADE IN USA

## Fast, Low-Cost Universal Device Programmer

- Parallel port interface
- 2000+ device types supported
- Menu driven software
- Programs (E)EPROM, PROM, Serial PROM, PALCE, GAL, flash memory, microcontrollers, ATF
- On-board FPGA for speed: 4X faster than offshore brands
- Auto search device select function supports (E)EPROM and microcontrollers
- Device insertion test identifies improperly inserted device before programming
- Auto programming for production programming
- Read, blank check, program, verify, checksum, data compare, security, auto function

**Includes:** Parallel cable, wall adapter, diskette & manual  
**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium® or compatibles, DOS 2.11 or greater, Windows® 95/98/2000/NT/XP; hard disk, 512k RAM & parallel port

Part No.	Description	Socket	Price
207731EE	CHIPMAX	40-pin ZIF	\$349.95



EX TOOLS  
MADE IN USA

## 512k E(E)PROM / Flash Programmer with USB Interface

- Programs EPROMs 27C/LV (64 – 080); EEPROMs 28C (256-040); Flash EEPROMs 29C(256-040) / 29EE/LE (512-020)/28F(256-020A) / 29F(010-040) & more
- 2 sockets for master/slave operation
- Stand-alone mode uses two 9V batteries
- Adjustable IC parameters, such as programming algorithm, V<sub>pp</sub> voltage, & pulse width
- Supports file formats binary & machine code, INTEL HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP
- Size: 6.3" L x 4.3" W x 1.8" H

**Includes:** USB cable, 12VDC @ 500mA power adapter; and CD-ROM

Part No.	Description	Price
220636EE	Leaper-3C	\$275.95

IP FUNCTIONS

Stand Alone Mode:

- Functions - Verify - Type

- Program - Blank check

PC-Based Mode:

- Type - Read - Program

- Blank check - Verify - Erase

- Disk - Help - Process

- Parameter



Order 24/7 Toll Free 1-800-455-6119

## High-Speed Universal Device Programmer/Tester

- Parallel port interface
- Programs Flash memory, PROM, EPROM/EEPROM, Serial (E)EPROM, Bipolar PROM, PAL, PALCE, GAL, NVRAM, PEEL, EPLD, SPLD, CPLD, PIC & microcontrollers
- 5000+ device types supported
- Hardware diagnostic program examines all 48-pin drivers
- On-board FPGA for speed; 4X faster than offshore brands
- Tests TTL, CMOS, DRAM and Static RAM ICs
- Detects pin locations for poor or damaged contacts
- Current limiting protects hardware circuits from improperly inserted or defective chips
- Supports POF and JEDEC formats
- High-speed device function tests and user creatable test library
- Read, blank check, program, verify, checksum, data compare, security, auto (erase, blank check, program, verify), and option bit program function
- Built-in editor for both buffer date and test vectors
- CE/CUL/CSA quality certified

**Includes:** Parallel cable, installation diskette, power cord and manual

**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium®, hard drive, 512k RAM, Windows® 95/98/2000/NT, and parallel port

Part No.	Description	Socket	Price
207765EE	TOPMAX — NEW	48-pin universal ZIF	\$875.95

EX TOOLS  
MADE IN USA  
NEW

## 48-Pin Advanced, Low-Cost Universal Programmer

- Provides a 48-pin ZIF socket that accepts any number of pins
- Programmable I/O level supports low voltage devices down to 1.8V
- Device insertion and pin contact check protect chips from damaging
- PLD & tests standard logic devices & SRAM
- High-speed embedded CPU generates more accurate & reliable algorithm timing
- Supports Windows® 95/98/2000/NT/ME/XP
- Connect to PC via printer port
- Size: 7.8" L x 5.5" W x 1.0" H • Weight: 4.0 lbs.

**Includes:** Power adapter, parallel cable, user's guide & CD-ROM software

Part No.	Description	Price
231191EE	SuperPro-280 adv. programmer — NEW	\$449.95

EX TOOLS  
MADE IN USA

Speed Comparison

Device Type	Program (seconds)	Verify (seconds)	Pieces in 8 hour day
28C64B	1	0.8	7578
24C256	3	8	2215
W78E58	13	3	1600
PIC12C508	1	0.8	7578



## IC Pin Straightener

- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
- Materials: black plastic
- Size: 3.3" L x 1.5" W x 0.4" H

**Includes:** Ground terminal

Part No.	Description	Size (LxWxH)	Price
99362EE	IC straightener	3.3" x 1.5" x 0.4"	\$6.95

EX TOOLS  
MADE IN USA  
NEW

**Prototype Builder Boards, Enclosures and Hardware**

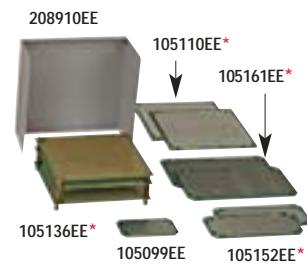
The prototype builder boards on this page are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases shown in each grouping. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed below. (P/N 106551EE).

**Board description:** laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.



\*All boards sold individually; multiple boards shown

Call for additional OEM pricing.



See website for hardware and knobs and more printed circuit board details.

**ABS Speedy Enclosures**

Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10
18921EE	H2855	3.1" x 2.0" x 0.9"	0.1	\$3.15	\$2.84
18913EE	H2853	4.9" x 2.5" x 1.5"	0.2	3.69	3.32
18892EE	H2851	6.0" x 3.5" x 1.9"	0.4	4.79	4.31
18905EE	H2852	7.5" x 4.3" x 2.3"	0.5	6.89	6.20

**Printed Circuit Boards for Above Enclosures**

- Power/ground, perimeter bus with pad per hole (\*except P/N 105099EE)
- Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10
105099EE*	2855PCB	2.7" x 1.6"	288	\$5.25	\$4.73
105128EE	2853PCB	4.4" x 2.0"	669	7.95	6.95
105152EE	2851PCB	5.5" x 3.1"	1450	9.95	8.95
105161EE	2852PCB	7.0" x 3.6"	2225	14.95	13.45

**Die-Cast Aluminum Enclosures**

High-quality die-cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10
11957EE	B5002	3.9" x 2.0" x 1.0"	0.2	\$5.95	\$5.39
11965EE	B5004	4.7" x 2.4" x 1.6"	0.4	8.49	7.64
11973EE	B5006	7.5" x 4.3" x 2.4"	1.2	13.95	12.56

**Printed Circuit Boards for Above Enclosures**

- Power/ground, perimeter bus with pad per hole
- Plated one side holes



Part No.	Product No.	Size (L x W)	No. of Holes	1	10
105101EE	5002PCB	3.5" x 1.5"	365	\$6.95	\$6.25
105128EE	5004PCB	4.4" x 2.0"	669	7.95	6.95
105161EE	5006PCB	7.0" x 3.6"	2225	14.95	13.45

**ABS Enclosures w/ Clear Tops**

Made of gray ABS plastic w/ clear polycarbonate top cover. Includes screws for mounting, rubber gasket for a tight seal on your equipment & drilled holes for mounting.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10
141831EE	203C1	4.6" x 3.2" x 1.8"	0.3	\$8.95	\$8.09
141840EE	203D1	6.3" x 3.2" x 1.8"	0.4	9.95	8.99
141858EE	203F1	7.0" x 5.5" x 2.5"	0.8	11.95	10.79

**Mounting Hardware for PC Boards**

- 4 spacers, 8 screws and 8 washers



Part No.	Description	1	10
106551EE	PC board mounting hardware	\$1.79	\$1.65

Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

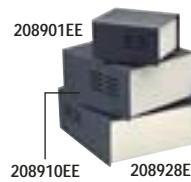
Same Day Shipping  
99% In Stock

**Metal Enclosures**

High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.

- Mounting screws and rubber feet included

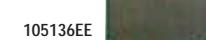
Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10
208901EE	B2741A	4.0" x 3.3" x 2.2"	0.4	\$6.49	\$5.89
208910EE	B2743A	5.9" x 5.3" x 3.0"	0.8	7.99	7.19
208928EE	B2744A	7.3" x 6.3" x 2.8"	1.1	8.99	7.99

**Aluminum Enclosures**

Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.

**Printed Circuit Boards for Above Enclosures**

- Power/ground, perimeter bus w/ pad per hole
- Ground bus
- Plated one side holes



Part No.	Product No.	Size (L x W)	No. of Holes	1	10
11869EE	B2300	4.0" x 2.0" x 2.8"	637	\$5.45	\$4.69
11885EE	B2320	5.0" x 4.0" x 3.0"	1266	7.89	6.15
11893EE	B2335	7.0" x 6.2" x 4.6"	1869	10.95	9.25

\*For use with P/N 11885EE only

\*\*For use with P/N 208910EE only

**Heavy-Duty Instrument Cases**

Both cases split apart for ease of working. Four plastic feet molded on unit. P/N 18876EE includes ventilation and speaker sound slots.



- Color: gray

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10
18868EE	H2505	7.9" x 6.3" x 2.5"	0.8	\$7.89	\$7.10
18876EE	H2507	10.0" x 7.5" x 3.1"	1.4	8.99	7.99

**Printed Circuit Boards for Above Instrument Cases**

- Power/ground, perimeter bus with pad per hole
- Plated one side holes

Part No.	Product No.	Size (L x W)	Holes	1	10
105179EE	2505PCB	6.5" x 5.0"	2829	\$14.95	\$13.49
105187EE	2507PCB	8.8" x 6.1"	4771	29.95	26.95

**3M Disposable Anti-Static Wrist Strap**

For one time use and low durability applications. A hypoallergenic adhesive provides 360° contact with the skin to minimize skin-to-band resistance. The conductive adhesive on the copper foil adheres to any convenient electrical ground. A current limiting resistor is fabricated into the plastic ribbon below the wristband. One size fits all.



Part No.	Product No.	1	10
285456EE	3M 2209 — NEW	\$1.25	\$1.17

## Nylon Cable Ties

### Standard


 126543EE

- Cable ties made from UL approved Nylon 66
- Temperature range: -40°C to +85°C
- Flammability rating: UL 94V-2
- Color: clear
- Sold in increments of 100 or 1000**

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
126543EE	18	4.0 x 0.10	\$.02	\$.014
182650EE	18	5.5 x 0.13	.035	.025
182668EE	18	8.0 x 0.13	.075	.05
190772EE	40	11.0 x 0.19	.10	.075

### Weather Resistant


 104141EE

- Contain Carbonate A for greater resistance to ultraviolet rays in outdoor use
- Color: black
- Sold in increments of 100 or 1000**



Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
104141EE	18	4.0 x 0.10	\$.044	\$.029
190781EE	40	8.0 x 0.13	.085	.065
190799EE	40	10.0 x 0.14	.10	.09
190801EE	40	13.0 x 0.14	.113	.088

## Nylon Cable Tie Mount

- Screw tab & cradle mount adhesive
- 1.1" square adhesive 4-way cable tie used with 0.2" W max
- Sold in increments of 10 or 100**



Part No.	Description	10	100
71394EE	4-way cable tie	\$.23	\$.19

## Heat Gun/Stripper



### Dual-Setting

- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts

Part No.	Description	Price
76865EE	Heat gun	\$39.95
217816EE	Heat shrink attachment	1.95

## PVC Heat Shrink Tubing



Part No.	Dia. before (mm)	10 ft.	100 ft.
184721EE	.12" (3)	\$1.19	\$10.50
182730EE	.16" (4)	1.39	12.50
182748EE	.20" (5)	1.45	13.00
182756EE	.24" (6)	1.49	13.50
182764EE	.31" (8)	1.79	16.00
182772EE	.43" (11)	2.80	19.00
182781EE	.59" (15)	3.50	30.00

 COLOR CODE LEGEND...  
 NEW SALE REFURBISHED CLOSEOUT

## 3M Super 33+ Electrical Tape

This tape provides flexibility and easy handling for all around performance. It combines PVC backing with excellent electrical insulating properties



to provide primary electrical insulation for splices up to 600V and protective jacketing. Excellent resistance to UV rays, abrasion, moisture, copper corrosion, alkalis and acids, and is flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) and designed to perform in a continuous temperature environment up to 220°F (105°C).

- UL listed and CSA certified
- Length: 66'

Part No.	Description	Price
285464EE	Electrical tape	\$4.35

## 3M Tartan 1710 Electrical Tape

3M™ Tartan™ 1710 Vinyl Insulating Tape offers good resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions including ultraviolet.



- UL listed
- Flame retardant
- Length: 60'

Part No.	Description	Price
285587EE	Tartan™ electrical tape	\$.95

## 3M 5-Color Vinyl Electrical Tape

3M #35 vinyl electrical color coding tape is used in phase identification, color coding leads, piping systems and for marking safety areas.



This tape is abrasion and weather-resistant, with excellent mechanical and electrical insulation properties that wraps smoothly and holds tight over a wide range of temperatures. UL Listed, CSA Certified, and flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) or hot to 220°F (105°C). 5 rolls to a pack with colors blue, green, red, yellow, and white.

- 1/2" x 20'

Part No.	Product No.	Price
287806EE	3M 10457	\$7.95

**WAHL®**

## 1,200°F Portable Heat Gun



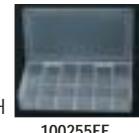
- Portable and flameless heat
- Temperatures up to 1,200°F (650°C)
- Typical applications: shrink tubing, activate adhesives and potting compounds, form plastics and laminates and preheat flux
- Each cartridge (disposable butane lighter) provides approximately 20 minutes of heat
- Includes disposable gas lighter
- Electronic ignition
- Size: 4.8" L x 0.9" W
- One-year warranty

**ETL listed**

Part No.	Description	Price
150691EE	Portable flameless heat gun	— NEW — \$24.95

Order 24/7 Toll Free 1-800-455-6119

## Plastic Fliptop Boxes



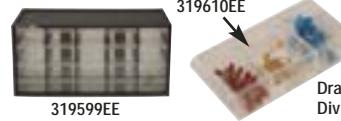
Clear plastic box with a clear plastic lid and removable dividers

100255EE	Size: 8.4" L x 4.5" W x 1.4" H
148902EE	Size: 10.2" L x 4.7" W x 1.6" H
148902EE	12 compartments (1.7" x 2.3" each)

100255EE

Part No.	Description	1	10
100255EE	18 compartments	\$2.25	\$1.95
148902EE	12 compartments	3.95	3.49

## Component Cabinet


 319610EE  
 Drawer (319601EE)  
 Divider (319610EE)

- Drawer can be divided into 3 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0" D x 14.7" W x 7.4" H • Wt.: 2.8 lbs.

319601EE size: 5.5" L x 2.7" W x 1.5" H

319610EE size: 2.5" W x 1.2" H

85454EE size: 5.5" L x 2.7" W x 1.5" H

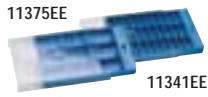
85446EE size: 2.4" L x 1.1" H

**Includes:** 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

\* Prepackaged: order in increments of 10

Part No.	Description	1	10
319599EE	Component cabinet	— NEW — \$15.95	\$13.95
319601EE	Drawer for cabinet	— NEW — .39	.35
319610EE	Divider for cabinet	— NEW — *	.19
85454EE	Drawer for P/N 81701	.39	.35
85446EE	Divider for P/N 81701	*	.19

## Bug Boxes



- Anti-static plastic
- Fits in bug cage (P/N 1132EE, see web)
- 11341EE: Stores sixty 8-pin or thirty 16-pin DIPs
- 11375EE: Designed to store all types of components
- 6 ea. vertical & horizontal dividers

Part No.	Description	1	10
11341EE	30 compartments	\$3.95	\$3.49
11375EE	3 compartments	3.95	3.56

## Protective Coiled Grounding Wrist Strap



Comfortable, adjustable Velcro wrist strap

The coiled cord has banana

plug and alligator clips

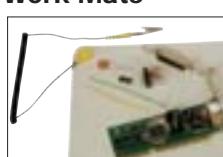
Extended cord: 9' long

Color: black

**Includes:** 1MΩ resistor for added safety

Part No.	Description	Price
34551EE	Anti-static strap	\$6.49

## Anti-Static Work Mats



Make your work environment safe from static discharge!

These mats are made of attractive semi-conductive vinyl that

provide adequate

discharging, yet will

not short leads or pins.

Part No.	Dimensions	Wt. (lbs.)	Price
10575EE	11.3" x 22.0"	0.7	\$9.95
10583EE	19.5" x 23.5"	1.1	13.95
236540EE	23.5" x 27.5"	1.4	24.95

**Fume Extractor and Filters**

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan



120150EE

- Air flow: 115 CFM
- Operate continuously providing filtered air
- Compact size allows use on work bench with minimum space
- 22 watt, 120VAC @ 60Hz
- Noise: 49dB fan
- Fuse protected
- Static ground jack
- On/off power switch
- Aerodynamic hood design for effective removal of solder fumes
- Removable carbon impregnated filter
- One-year warranty
- Black anodized aluminum case
- Size: 6.4" W x 4.6" D x 7.9" H • Weight: 4.6 lbs.

**Includes:** Detachable power cord

Part No.	Description	Price
120150EE	Fume extractor	\$58.95
127183EE	Replace. filters (2/pk)	12.95

**XYTRONIC Combination 42-Watt Soldering Station and Fume Extractor**

- Power consumption: 42W @ 650°F (soldering iron)
- Adjustable knob for temp. control: 500° to 800°F
- Stability @ idle: ±9°F
- Max. air volume: 95/115CFM
- LED indicator for pilot light & lighted on-off switch
- Electronic zero-voltage switching
- Input voltage: 100-120VAC @ 60Hz
- Size: 6.4" W x 7.8" H x 4.7" D • Weight: 5.2 lbs.

**Includes:** Soldering iron, iron holder, sponge, carbon activated filter, power cord and manual

Part No.	Product No.	Price
183169EE	456DLX — NEW	\$89.95

**30-Watt Soldering Iron and Stand**

102461EE

Sponge  
134631EE, below  
36329EE

- UL approved
- 110-120VAC
- 1/4" removable tip
- Length: 8.3"
- Ideal for precision work

Part No.	Description	Price
102461EE	30W soldering iron	\$4.99
116020EE	Replacement tips (2)	2.25
134631EE	Sponge	2.99
36329EE	Soldering stand	4.95

**Weller® 40-Watt Soldering Station**

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 40 watt, 120V @ 60Hz
- Temperature is electronically controlled from 350° to 850°F
- Size: 5.5" L x 4.5" W x 3.5" H • Wt.: 1.9 lbs.

**Includes:** ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Prod. No.	Description	Price
146595EE	WLC100	Soldering station	\$48.95

**Vacuum Pen Tools****NEW**

- ESD safe body
- Picks up components with weight of 1.1 lbs. or less

207239EE: 4 tips and cups

207247EE: Aluminum body; 6 tips and cups

Part No.	Description	Price
207239EE	Handivac tool — NEW	\$19.99
207247EE	Pen vac tool — NEW	37.95

**Electric & Manual Desolder Pumps**

- Easily disassembled for cleaning
- Replacement tips available

19254EE:

- One-hand operation
- Size: 10.5" L x 1.0" Dia.
- UL listed

19166EE: Size: 7.8" L x 0.8" Dia.

305218EE/305226EE: Size: 13" L x 1.0" Dia.

Part No.	Description	Price
19254EE	Electric desolder pump	\$26.95
19166EE	Manual desolder pump	4.95
305218EE	Manual desolder pump	18.95
305226EE	Man. desolder pump (ESD safe)	14.75
19262EE	1 tip for 19254EE	4.95
22091EE	2 tips for 19166EE	4.49
307774EE	1 tip for 305218EE	4.55
307782EE	1 tip for 305226EE	2.39

We're always looking for suggestions &amp; feedback

Drop us a line at: [AtHome@Jameco.com](mailto:AtHome@Jameco.com)**Weller®****Professional 25-Watt Soldering Iron**

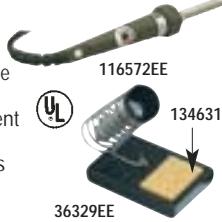
- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9" • 120VAC @ 60Hz

**Includes:** Power cord & ST3 tip (below)

Part No.	Prod. No.	Description	Price
170587EE	WP25	25W solder iron	\$32.95
192153EE	PH25	Solder iron stand	16.19

**Weller® Soldering Tips****Replacement Tips for WLC100, WP25 & WP23**

Part No.	Prod. No.	Description	1	10
146608EE	ST1	Screwdrvrtip 1/16" ...	\$5.95	\$5.35
146616EE	ST3	Screwdrvrtip 1/8" .....	5.95	5.35
192145EE	ST6	Scrwdrvrtip .031" .....	5.25	4.75
146624EE	ST7	Conical tip 1/32" .....	5.95	4.95

**16 to 30-Watt Variable Soldering Iron, Stand & Sponge**116572EE  
134631EE  
36329EE

116572EE:

- Length: 7.5"
- Black anodized steel base – 5.3" L x 3.3" W
- See below for replacement sponge (P/N 134631EE)
- Fits most soldering irons .85" diameter

**Includes:** Sponge

Part No.	Description	Price
116572EE	Soldering iron	\$16.95
36329EE	Soldering stand	4.95
134631EE	Sponge (for 36329EE)	2.99

**Economical, High-Performance Soldering Irons****Economical, High-Performance Soldering Irons**

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.

- 40W & 60W • Length: 9"
- 120VAC; 6' cord with 3-prong plug
- 226000EE (chisel, std.); 226018EE (conical, opt.) – tips for 224602EE
- 226026EE (chisel, std.); 226034EE (conical opt.) – tips for 195223EE

Part No.	Product No.	Price
224602EE	200PHG-40W iron	\$9.95 <b>\$8.95</b>
195223EE	200PHG-60W iron	13.95
226000EE	Chisel tip	.95
226018EE	Conical tip	.95
226026EE	Chisel tip	1.95
226034EE	Conical tip	1.95

**Thermally Balanced 25-Watt Soldering Iron**

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.

- 120VAC; 6' cord
- 25-watt power consumption
- Interchangeable tips (see web)
- UL listed • Length: 8.0" • One-year warranty

**Includes:** 1.6mm conical tip

Part No.	Description	Price
129040EE	25W solder. iron — NEW	\$11.49

**WAHL® Cordless Soldering Iron**

Perfect for work or home when AC power is not available!

- 900°F tip temperature
- LED indicator light
- Iron performance equivalent to 25-watt iron
- Solders 200+ joints or up to 30 minutes of continuous soldering
- Weight: 1.1 lbs.

**Includes:** Soldering iron, recharging stand, NiCAD battery pack, & tips

Part No.	Description	Price
132783EE	Power Pro cordless iron	\$61.95

**More @ [www.Jameco.com](http://www.Jameco.com)**

## Weller® Analog Soldering Station

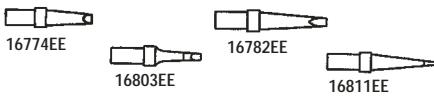
- Innovative heater and sensor combination for quick heat-up and rapid temperature recovery
- Tip temperature offset capability which allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- Auto power down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F (177°C - 454°C)
- Temp. accuracy: ±90°F (±5°C) • ESD safe
- Size: 5.9" L x 4.5" W x 3.6" H • Weight: 4.0 lbs.

Part No. Product No. Price  
217461EE WES51 ..... \$115.95



### Replacement Tips for WES51

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered



Part No. Prod. No. Description Price  
16774EE ETA Screwdriver 1/16" ..... \$6.95  
16782EE ETJ Long screwdriver 1/32" ..... 6.95  
16803EE ETR Narrow scrwdrvrv 1/16" ..... 6.95  
16811EE ETS Long conical 1/64" ..... 6.95

## 60-Watt Analog Display Soldering Station

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Size: 4.3" W x 6.0" D x 3.4" H • Weight: 4.1 lbs.

Includes: One 1/16" tip (P/N 35115EE, see web)

Part No. Product No. Price  
236110EE 168-3C — NEW ..... \$89.95



## 42-Watt Controlled-Output Soldering Station

- Transformer powered soldering station complete with macro style, low voltage, temperature controlled soldering iron
- Closed loop method of controlling maximum tip temperature for protection of temperature sensitive components • 120VAC @ 60Hz input
- Power unit housing features impact resistant plastic for durability
- Quick disconnect plug for soldering iron and lighted on/off switch
- Separate conductor grounds iron tip and terminates third pin of power cord • Uses PT series tips
- Size: 5.9" L x 4.5" W x 3.6" H • Weight: 4.0 lbs.

Includes: Soldering iron and PTA7 tip

Part No. Prod. No. Description Price  
170552EE WTCPT — NEW Solder station ..... \$129.95



## Weller® 50-Watt Digital Display Soldering Station

Innovative heater and sensor combination for quick heat-up and rapid temperature recovery.

- Tip temperature offset capability allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- Auto power-down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F
- Temp. accuracy: ±90°F (±5°C) • ESD safe
- Size: 5.9" L x 4.5" W x 3.6" H • Weight: 4.0 lbs.

Includes: PES51 50W soldering iron with ETA tip, PH50 stand and sponge, and adjustment tool

Part No. Product No. Description Price  
233533EE WESD51 — NEW Digital ..... \$158.95



## 65-Watt Soldering Station with Micro Soldering Pencil



The micro soldering pencil has the shortest tip-to-grip distance on the market today, giving you excellent control by putting you closer to the work. The heating element is contained in the pencil rather than the tip so you do not throw away a good heater every time you wear out a tip.

- Fast heat-up and thermal recovery
- Tips are secured to the pencil by use of a threaded end, eliminating the use of a barrel nut
- Temperature is reduced to 300°F (150°C) when pencil is not used for 20 minutes. Unit is switched off after 60 minutes of inactivity
- ESD safe to protect sensitive components
- Voltage: 120V input; 24V output
- Temperature range: 150°F-850°F (66°C-454°C)
- Temperature accuracy: ±9°F (±5°C)
- Temperature stability: ±10°F (±6°C)

Includes: WSLPU power unit, WMP soldering pencil with NT1 tip, and WMPH iron stand

Part No. Product No. Description Price  
227408EE WSL — NEW ..... \$255.95

## 45-Watt Analog Display Soldering Station

### Grounded Soldering Tip

- 500°F to 850°F
- Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation
- Size: 7.0" L x 4.5" W x 3.5" H • Weight: 2.5 lbs.

Includes: Manual, soldering iron, stand & (2) sponges

Part No. Product No. Description Price  
229673EE XYT379-C — NEW 45-Watt station ..... \$59.95



Order 24/7 Toll Free 1-800-455-6119



## SMD Rework Station

High-performance, inexpensive, versatile

- Adjustable temperature: 250°C - 450°C (482°F - 842°F)
- Thermocouple sensor for stable temperature
- Long-life ceramic heating element
- Rapid heat-up and recovery
- 40W station, 25W ceramic element
- Size: 7.4" L x 5.0" W x 3.3" H • Weight: 2.6 lbs.

Includes: Base power unit, sponge, stand, surface mount tweezers iron, and stand for tweezers

Part No. Description Price  
224629EE Rework station — NEW ..... \$89.95



## 60-Watt Desoldering Station

Simple fine tune feature to select within 300-850°F range

- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes
- Size: 9.2" L x 7.2" W x 3.6" H
- Weight: 13.1 lbs.



Includes: XYD12 tip and solder holder

Part No. Product No. Description Price  
125508EE 968 Desoldering station ..... \$299.95  
125516EE 988 — NEW Solder/desoldering ..... 399.95  
236460EE 78-744615 Replacement sponge ..... 2.99

**Special! 5% Bundle Savings**  
Complete ISO 9000 digital station  
P/N 236101EE & 125508EE  
Sold separately \$409.90  
Combined: P/N 207263EE \$388.95



## 60-Watt Digital Display Soldering Station

Designed where precise temperature is required for sensitive components.

- Temperature is maintained at ±6°F
- External calibration port
- Electronic temperature control from 392° to 878°F
- CMOS devices protected against voltage spikes
- Power-on and heater-on LED indicators
- Size: 5.1" W x 8.0" D x 4.0" H • Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115EE – see web)

Part No. Product No. Description Price  
236101EE XY9-60D/ESD Digital - ESD safe ..... \$109.95  
236460EE 78-744615 Replacement sponge ..... 2.99  
35115EE XY404 — NEW Tip - conical chisel 1/16" .... 4.49



236101EE

More @ [www.Jameco.com](http://www.Jameco.com) — Visit us today!

**300-Watt Solder Pot****Temperature Regulated Between 420° - 450°C**

- HI/LO switch selectable for temperature
- 2 conductor power cord; 5' 9" long
- Holds up to one 1.1 lbs. solder bar
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)

• Size: (tub) 2.4"Dia. x 1.6"D



Part No.	Description	Price
160303EE	300W solder pot	\$64.95

**2000-Watt Solder Pot**

- Thermostat control for setting temperature from 50°C to 300°C
- Holds up to 48 bars of P/N 176057EE or 170464EE, see web
- Input voltage: 110VAC @ 18A, 50-60Hz single phase
- 3 conductor pigtail power cord: 5' long
- Size (unit): 18.1" L X 11.5" W X 6.0" H
- Size (tub): 12.0" L X 8.0" W X 2.9" H
- One-year warranty

Part No.	Description	Weight (lbs.)	Price
14987EE	2000 watt solder pot — NEW	23.1	\$399.95

**NEW****Soldering Tip Cleaner with Stand and Rosin Paste Flux**

156777EE:

- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability

73584EE:

- Highly active non-corrosive and non-conductive flux with excellent wetting action

Part No.	Description	1	10
156777EE	Tip cleaner & stand	\$4.95	\$4.49
160004EE	Metal wool replacement	2.79	2.49
73584EE	Rosin paste flux (2 oz)	1.99	1.89

**73584EE****Third Hand**

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight:
- P/N 26690EE: 0.7 lbs.;
- P/N 72864EE: 1.4 lbs.

**72864EE**

Part No.	Description	Price
26690EE	Third hand	\$5.95
72864EE	W/ soldering holder	7.95

**Precision 3X and 5X Magnifying Lamps**

This is the perfect tool to help identify small electronic components and for soldering.

- Adjustable to any direction
- 5" diameter magnifying glass with built-in light

**197456EE**

197456EE: 40" extension arm

100829EE/149981EE: 45" extension arm

Includes: 22W circuline fluorescent bulb

Power requirement: 110VAC/60Hz

Part No.	Description	Price
197456EE	5X magnifying lamp (white)	\$109.95
100829EE	3X magnifying lamp (black)	59.95
149981EE	3X magnifying lamp (white)	59.95

**Over 99% of our products are in stock!****300-Watt Solder Pot****Temperature Regulated Between 420° - 450°C**

- HI/LO switch selectable for temperature
- 2 conductor power cord; 5' 9" long
- Holds up to one 1.1 lbs. solder bar
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)

• Size: (tub) 2.4"Dia. x 1.6"D

**Rosin Core Solder Rolls and Pocket Packs**

For general use in soldering electronic components. Composition varies from 60-40 to 63-37.

**141778EE****32117EE****170456EE****73576EE**

\* Organic core

Part No.	Mfr.	% Composition			Dia. (In.)	Wt. (lbs.)	Pricing	
		Tin	Lead	Silver			1	10
73576EE	Kester (pak)	60	40	0	.031	0.04	\$2.59	\$2.35
32117EE	Kester	60	40	0	.031	1.00	13.19	11.89
73605EE	Kester (pak)	62	36	2	.020	0.10	1.75	1.49
112344EE	Kester	63	37	0	.020	1.10	17.95	16.19
151474EE	Kester*	63	37	0	.031	1.00	17.69	15.95
170456EE	Golden	60	40	0	.031	0.06	1.39	1.25
141794EE	Super	60	40	0	.031	0.55	5.95	5.39
141786EE	Super	60	40	0	.031	1.10	7.95	6.95
141778EE	Super	60	40	0	.031	2.20	13.95	12.95

**Lead-Free Solder Tip Tinner**

Prevents oxide buildup and tin depletion on the tip. Increases tip life and heat transfer resulting in a better solder joint! 0.7oz. tin with self adhesive pad.

**Safe and Effective!**

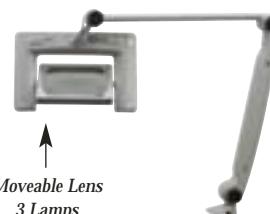
Part No.	Description	1	10
132986EE	Lead-free tip tinner	\$4.95	\$4.59

**Desoldering Wick****No More Burnt Fingers**

- Handy dispenser
- Length: 5'
- Pure copper braid
- No clean flux formula

**NEW**

Part No.	Description	1	10
175986EE	0.067" W braid — NEW	\$2.99	\$2.69

**3X Adjustable Magnifying Lamp with 3 High-Intensity Lamps****Moveable Lens**  
**3 Lamps**

Need a flexible magnifying solution at a terrific price? Our adjustable rectangular 3-diopter 7.0" x 4.5" diameter lens allows the magnifier independent movement from the light for best viewing angle. On/Off buttons control the top and side lights separately, allowing varying light intensity.

Part No.	Description	Price
217517EE	Adjustable magnifying lamp	\$79.95

**LED Flashlight**

Super bright white LEDs have a life of at least 11 years of continuous use. This heavy-duty flashlight is waterproof and designed for all weather conditions. Its shockproof casing was built to withstand a drop from 4'.

**Super Bright White LEDs!**

LED flashlights have a low cost per hour of operation because batteries last 14 times longer than in conventional flashlights. Of continuous use, the 10-LED flashlight lasts a month on three "D" cell batteries, 7-LED flashlight uses 3 "C" cell batteries and lasts 25-days and the 4-LED model lasts 14-days using three "AA" cell batteries.

Part No.	Description	Price
215677EE	10-LED 10.6" Flashlight	\$63.95
215685EE	7-LED 8.9" Flashlight	53.95
215693EE	4-LED 7.9" Flashlight	33.95

**Flashlight Adapters****SALE****Illuminate those impossible-to-reach places!**

For close work in confined areas, now you can twist and shape your light to reach where no beam has gone before! No more wrestling and squinting; these precision adapters turn your Maglite® AA and AAA flashlights into a go-where-you-need-it lighting system. Perfect for kit-builders, maintenance work, any application where light is needed in hard-to-access places. Just choose the length (4.5" to 20") and size that's right for you.

Part No.	Description	Price
239927EE	7" adapter with AA flashlight	\$19.95
239943EE	7" adapter for most AA flashlights	6.95

Part No.	Description	Price
239951EE	4.5" adapter for AAA flashlights	\$5.95
239960EE	20" adapter for AA flashlights	9.95

## 9-in-1 Multi-Tool

Multi-function stainless steel tool fits in the palm of your hand or slip it into the provided sheath on your belt. Great gift for the handyman or sportsman.

Includes: Spring loaded pliers, wire cutter, LED light, knife, bottle opener, metal file, nail pick, and both a Phillips and a flat-head screwdriver.

Part No.	Description	Weight	Price
227264EE	9-in-1 multi tool	3.0 oz. ...	\$6.29 <b>\$4.39</b>





• Safe on plastics

## Repair broken traces in 3 easy steps!



• EPA SNAP approved, no CFCs or HCFCs

### 1. Flux Remover Pen

This excellent defluxer, can be used as an all-purpose cleaner for removal of light oils, silicones, waxes, greases, and similar contaminants.

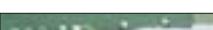
Part No.	Product No.	Price
263724EE	11.5 ml pen	\$6.19



### 2. Conductive Pen

Contains a fast drying, silver filled ink designed to quickly make highly conductive silver traces, jumpers, links and shields components.

Part No.	Description	Price
263716EE	4.89 ml pen	\$12.69



### 3. Overcoat Green Pen

Insulate printed circuit board traces and components against high voltage arcing and provide protection from moisture.

Part No.	Description	Price
263732EE	5 ml pen	\$9.85



## CHIPQUIK SMD Removal Kit



- Quick and easy to use
- Potential damage to printed circuit boards is eliminated
- 2.5' of CHIPQUIK® material removes 1250-1500 SMD pins

Part No.	Description	Price
141305EE	SMD removal kit	\$21.95

## 4-Piece Conductive SMD Tweezer Set



- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip
- Each is 4.5" long

Part No.	Description	Price
172638EE	4-piece conductive SMD tweezer set	\$11.95

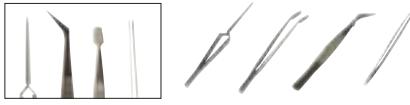
## PLCC Surface Mount IC Extractors



- Size: 4.0" L x 2.0" W (both)

Part No.	Product No.	Description	Price
16766EE	HT103B	PLCC IC extractor	\$3.95
16838EE	HT103A	DIP IC extractor	1.49

## 4-Piece Steel Tweezer Set



- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

Part No.	Description	Price
10735EE	4-piece tweezer set	\$7.95

## D-Sub Pin Insertion/ Extraction Tool



- Material: Red/white plastic body
- Exchangeable tips

Part No.	Description	Price
19094EE	Insertion/extraction tool	\$2.79

 COLOR CODE LEGEND...  
   

## IC Pin Straightener



- Straightens 8/14/16/ 18/20/24/28/40/42-pin ICs
- Materials: black plastic
- Size: 3.3" L x 1.5" W x 0.4" H

Includes: Ground terminal

Part No.	Description	1	10
99362EE	IC straightener	\$6.95	\$6.26

## CRIMP PIN EXTRACTION TOOLS



- Easily extract 0.093" locking pins from connectors
- Heavy duty metal
- Precision design
- See crimp pins on pg 31 (42729EE and 42649EE)

Part No.	Prod. No.	Description	Price
131887EE	HT319C	— NEW Male tool for 42729EE	\$10.95
131879EE	HT319B	— NEW Fem. tool for 42649EE	10.95



## SALE

## 14.4 Volt Tool Kit

This tough and economical set of cordless rechargeable tools puts home improvement power in your hands in a hurry. The kit comes with two interchangeable 14.4V batteries and a quick charger so you never run out of power. Everything is contained in one convenient case so you won't forget one of your essential tools.

- Drill/driver—Variable speed reversing with a 3/8" keyless chuck, a 16 position clutch, metal gears, and bronze bushings
- Detail sander—Triangle shaped for sanding in small and difficult-to-reach places; counter-balanced drive shaft with ball-bearing support
- Jigsaw—Adjustable base plate, 0.5" stroke, and 1750 SPM operation
- Flashlight—Has adjustable head so you can direct the beam where you really need it

Part No.	Description	Price
235504EE	14.4 volt tool kit	\$54.95

## Digital Display Calipers



- Hardened stainless steel
- Display: inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm (0.0005")
- Calipers measure to 6 inches/150mm
- Instructions for making internal, external, depth and step measurements
- One-year warranty

Includes: Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783EE, see web)

Part No.	Description	Wt.(lbs.)	Price
127482EE	Digital disp. calipers	0.8	\$64.95

## Metal Dial Caliper



- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Length: 6" (150mm)
- Materials: metal
- Color: silver

Includes: Fitted plastic storage case

Part No.	Description (min. reading)	Price
116126EE	Inches (.001 inch) — NEW	\$29.95

## 26-Piece SAE Hobby Tool Set



- 4 1/2" long nose pliers
- 4 1/2" diagonal cutting pliers
- #1 & #2 Phillips bits
- #1 & #2 pozit bits
- 3/16" & 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 Torx bits
- Driver handle
- Compact carrying case
- 3" extension bar for 1/4" drive
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Size: 12.0" L x 9.0" W x 2.0" H
- Weight: 1.5 lbs.

Part No.	Description	Price
170069EE	26-pc. SAE tool set	\$17.95

Order 24/7 Toll Free 1-800-455-6119

JAMECO®

## Quick-Reference of Professional Tool Kit Contents

Parts included in kits	26681EE	218245EE	242851EE	149024EE
3-prong holder		1	1	1
Anti-static strap			1	1
Brush	1	1	1	1
Crimping tool		1	1	1
Desoldering pump	1	1	1	1
Digital Multimeter	1		1	
Drill set				1
Files, needle	2-pc		6-pc	5-pc
Flashlight		1	1	1
Forceps				1
Heat sink		1		1
IC extractor		1		1
Inspection mirror		1		1
Measuring tape, 10-foot	1	1		1
Pliers, 8" lineman			1	
Pliers, bent needle nose	1	1	1	1
Pliers, diagonal cutter	1		1	1
Pliers, flat nose	1		1	1
Pliers, snipe nose				1
Scissors	1	1	1	
Screwdriver set	8-pc	8-pc	12-pc	9-pc
Screwdrivers, precision	6-pc	6-pc	6-pc	6-pc
Solder core		11	1	1
Soldering aid kit, 3-pc	1	1	1	1
Soldering iron	1	1 (30W)	1 (30W)	1 (25W)
Soldering stand	1	1	1	
Tape, electrician			1	1
Tweezers	1	1	1	1
Utility components box	1	1	1	1
Utility knife	1	1	1	
Wire stripper				1
Wrench, adjustable		1	1	1
Wrench, hex key	7-pc	7-pc	7-pc	7-pc
Wrench set		6-pc	5-pc	10-pc
<b>Total Pieces</b>	<b>51</b>	<b>57</b>	<b>100</b>	<b>114</b>
<b>Price</b>	<b>\$94.95</b>	<b>\$124.95</b>	<b>\$199.95</b>	<b>\$279.95</b>

## 51-Piece Tech Tool Kit

Part No.	Description	Price
26681EE	51-piece tool kit — NEW	\$94.95

## 57-Pc. Master Electronics Tool Kit

Every tool needed for field repair or installation. All in a lockable case, with room for spare parts.

Part No.	Description	Price
218245EE	Master electronic tool kit — NEW	\$124.95



NEW



NEW

## 100-Piece Professional Electronics Tool Kit

Kit for Field Technicians and Engineers!

- In addition to the tools listed in the matrix left, the kit includes:
  - Computer/polarity circuit tester
  - Mini vacuum cleaner
  - Cassette head cleaning fluid
  - 3.6V cordless screwdriver kit (bits included)
- Aluminum case features removable pallets, surface-type locks, and black plastic handle
- Size: 18.0" L x 14.0" W x 6.0" H • Weight: 15.5 lbs.

Part No.	Description	Price
242851EE	100-piece tool kit — NEW	\$199.95



NEW

## 114-Piece Tech Service Tool Kit

- In addition to the tools listed in the matrix left, the kit includes:
  - 40-pc socket pack
  - 6" side cutter
  - 6" long nose plier
  - 6" slip joint plier
  - carpenter hammer
  - 3 piece trimmer set
  - stainless steel spring hook
  - solder wick
  - 8" combination plier
  - 2 removable pallets
- Size: 18.5" L x 13.8" W x 6.7" H • Weight: 22.8 lbs.

Part No.	Description	Price
149024EE	114-piece tool kit	\$279.95



## 12-Piece Lightweight Computer-Service Tool Kit

Kit includes:

- 2 nut drivers:  
3/16", 1/4"
- 3-claw parts holder
- 1-pc hex key wrench
- IC extractor
- 4-pc screwdriver set
- Tweezers
- 14-16 pin IC inserter/straightener
- Size: 9.0" L x 5.8" W x 1.3" H • Weight: 1.2 lbs.

Part No.	Description	Price
14189EE	12-piece tool kit	\$16.95



## Non-Insulated Terminal D-Sub Crimping Tool

## 14-26 AWG

- Metal crimping tool with cutter and insulated handles
- For computer pins, sockets and D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire • Coiled spring return
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire

Part No.	Product No.	Price
99442EE	HT202A	\$9.49



## D-Sub Crimping Tool

## 20-28 AWG

- Crimps D-sub pins and sockets
- Size: 7.0" L x 4.0" W

Part No.	Product No.	Price
159265EE	HT213	\$10.95



## Hand Crimp Tool

This tool is designed to crimp terminals, strip and cut wires, and cut bolts. Cuts and strips wires from 18-30 AWG. For Molex crimp pin terminals with .062", .093" diameters and KK® series (check our website)



## Metal Modular Connector Crimping Tool

- Cable stripper and wire cutter
- Size: 8.0" L
- Weight: 1.8 lbs.
- Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)

Part No.	Description	Price
114526EE	RJ11/RJ45	\$24.95



## Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction

Part No.	Description	Price
114534EE	HT-3019	\$23.95



## Terminal Wire Crimping Tool

- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0" L x 2.0" W

Part No.	Mfr. Cross Ref. No.	Price
72995EE	HT303	\$18.95



## Ratcheted Modular Connector Crimping Tool

- Insulated grip
- Ratcheted type
- Metal • 7.5" L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C) • Weight: 0.7 lbs.

Part No.	Description	Price
159311EE	RJ45/11/12	\$21.95



## IDC Connector Crimping Tool

- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 31

Part No.	Product No.	Size	Price
73251EE	HT214	9.2" L x 3.0" W	\$15.95

More @ [www.Jameco.com](http://www.Jameco.com)

## Hex Crimp Tools

- Use with RG-58 and RG-59 connectors with up to a 3/8" ferrule
- 261745EE:** 1.7mm standard crimp for crimping center conductor on BNC & TNC connectors; up to 3/8" ferrule
- 261737EE:** Ferrules up to 1/2"

Part No.	Description	Price
261745EE	Hex crimp tool, 3/8"	\$19.75
261737EE	Hex crimp tool, 1/2"	19.49



## 5" Cutting Pliers

Recommended for cutting copper and soft lead wires. Ideal for precise circuit board work.



Part No.	Description	Price
261809EE	Cutting pliers	\$4.99

## 4.3" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick
- Stainless steel
- Durable rubber handles
- Jaws are designed for flush cutting
- 4.3" L x 2.1" W with 0.5" cutting blade



Part No.	Description	Price
35481EE	Wire cutter	\$5.59

## 6.6" Wire Stripper

- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6" L x 2.0" W



Part No.	Product No.	Price
159290EE	HT5023 — NEW	\$9.95

**NEW**

## 7-in-1 Wire-Handling Tool

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Solderless crimping tool
- Scale: mm and inch
- Size: 6.6" L x 3.0" W



Part No.	Prod. No.	Description	Price
18796EE	HT104 — NEW	10-18AWG	\$4.95
127861EE	HT1042 — NEW	16-26AWG	5.49
127870EE	HT1043 — NEW	22-30AWG	5.49

## Xcelite® Wire Cutter

- Spring return
- Micro series wire cutter – flush; 6"



Part No.	Product No.	Price
146712EE	170M	\$5.75

## Automatic Wire Stripper

- Strips 8-22 AWG wires
- Spring load grip
- Size: 7.0" L x 2.5" W
- Weight: 0.8 lbs.



**Includes:** Wire stopper for desired strip length

Part No.	Description	Price
175097EE	Auto wire stripper	\$16.95

COLOR CODE LEGEND...  
   

## Rotary Coax Cable Strippers

### 2 and 3 Blade

- 159118EE (3 Blade): 2 settings RG58/59/62
- 159185EE (2 Blade): 4 settings RG58/59/62/174



- For cable sizes 4-10mm
- Size: 4.2" L x 1.3" W
- Color: black
- For cable sizes 4-12mm
- Size: 3.9" L x 0.7" W
- Color: gray

**Includes:** Hex key wrench for adjusting blade

Part No.	Product No.	Price
159118EE	HT312B (3 blade)	\$13.95
159185EE	HT332D (2 blade)	13.95

## 5-Piece Pliers Set

- Precision machined heat-treated jaws
- Vinyl insulated handles

**Includes:** 6.5" needle nose; 7.5" lineman's; 8" slip joint; 8" groove joint & cutting pliers



Part No.	Description	Price
261905EE	Pliers set	\$9.75

## Precision 5-Piece Stainless Steel Pliers Set



- Spring return
- Insulated handles

**Includes:** One 3.5" L micro cutting nippers and one each 4" L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers



**NEW**

Part No.	Description	Weight (lbs.)	Price
73120EE	5-piece set — NEW	0.6	\$17.95

## High Speed Steel Step Drills



Drill multiple holes in thin material with the same bit, faster and easier. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick. No center punching on most sizes. Made of high-speed steel.

Part No.	Description	Size	Price
229657EE	Step drill	3/16" to 7/8" 13-step	\$14.95
172401EE	Step drill	3/16" to 1/2" 6-step	9.95

## Impact Punch-Down Tool

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade



175071EE

Punch-down tool with blade

- For 66-type terminals

Size: 5.2" L x 1.5" W x 1.0" H



175089EE: Punch-down blade

- Blade for 110-type terminals

Part No. Description

175071EE Tool w/ 66 blade \$34.95

175089EE Punch-down blade 110 14.95

## T-Handle Reamer Tool

**Excellent for aluminum chassis work**



**NEW**

Part No.	Description	Price
151749EE	T-handle reamer tool — NEW	\$7.95

## Strip-Wrap-Unwrap Tool



34585EE

- Tool tip made of tempered steel
- Spring steel cutter
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 33 for wire
- Wrap 1 to 2 turns of insulated portion of wire for secure connections
- Modified tool
- 4.5" long

Part No.	Mr. Cross Ref. No.	Price
34585EE	WSU30M	\$49.99
236785EE	HSR30	29.95

## Nibbling Tool



18809EE

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required
- Size: 7.8" L

Part No.	Prod. No.	Description	Price
18809EE	HT204	Nibbling tool	\$7.95
29330EE	HT204B	Replacement bit	4.49

## 25-Piece Hex Key Set



- 12-piece SAE long arm with sizes from 1/16" to 3/8"
- 13-piece metric short arm with sizes from 1.5mm to 1cm

**Includes:** Vinyl pouch

Part No.	Description	Price
261825EE	Hex key set	\$6.95

## 7-Piece Nut Driver Sets



- Premium hardened steel sockets
- Large colored handles

261850EE: Metric 5mm, 6mm, 7mm, 8mm, 9mm, 10mm & 11mm

261841EE: SAE 3/16", 1/4", 5/16", 11/32", 3/8", 7/16", 1/2"

Part No.	Description	Price
261850EE	Metric nut driver set	\$8.99
261841EE	SAE nut driver set	9.89

## Spring Hook Set



Grab or place in position springs and wires in those hard-to-reach areas with these 8" long spring-hook tools.

Part No.	Description	Price
226042EE	Spring-hook set	\$5.49

**JAMECO**

Order 24/7 Toll Free 1-800-455-6119

### 3-Piece Open-End Ratcheting Wrench Set

The Alden Wrench needs only 30° of pivot angle, rather than 60° required by other open-end wrenches.



With the built-in ratchet, you need not even remove the wrench from the head of the bolt or nut. Coupled with its small head sizes and ratcheting action, you can loosen or tighten a bolt faster and in tighter spaces. It is made of stainless steel and is individually hand polished.

• SAE 3/8-7/8, 1/2-9/16, 5/8-11/16

Part No.	Description	Price
223896EE	SAE open-end wrench set	\$29.95

**Drop us a line at:**  
**[AtHome@Jameco.com](mailto:AtHome@Jameco.com)**

**We're always looking for suggestions and feedback about the products we offer. Help us better supply more of the products you need.**

### Data-Vac Electric Duster

This compact, handheld Data-Vac electric duster is far less expensive and better for the environment than canned air. It quickly and easily blows dust, lint and debris off keyboards, computers, printers, disk drives, fax machines, photographic and other high-tech equipment. That helps prevent costly downtime and computer repair.

- 1.73 amps/0.5HP motor
- 25 CFM/10,000FPM
- 12' UL approved power cord
- Attachments: air pin pointer & power air maximizer

Part No.	Description	Wt. (lbs.)	Price
219192EE	Data-Vac electric duster	2.9	\$38.95



**SALE**

### Electronic Duster

Now you can use the same cleaning system that computer and copy-machine techs use nationwide. Its high power and 4-piece Micro Cleaning Tool Kit gets into all the nooks and crannies of your keyboard, computers, fax machines, printers, and scanners to bring them back to clean-room condition. Plus, its custom carrying case makes it easy to ensure high level performance of everything you own.



Part No.	Description	Price
219256EE	Data vac pro	\$49.95
219264EE	Disposable bags	4.99

### Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.



Shown w/ drill (26702EE) & stand (26711EE)

Part No.	Description	Wt. (lbs.)	Price
26702EE	MS398 drill	0.8	\$29.95
26711EE	MS399 stand	1.8	19.95

### 9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .126"
- Each kit will vary in contents of bit sizes
- Shank diameter: .125"

Includes: Plastic case

Part No.	Description	Price
131676EE	9-piece drill bit kit	\$9.95



### 2000-Count Pocket Multimeter

- DC voltage ranges: 200mV, 2V, 20V, 200V, 1000V
- AC voltage ranges: 200V, 750V
- DC current ranges: 200µA, 2mA, 20mA, 200mA, 10A
- Resistance ranges: 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ
- Diode and transistor tests
- Removable test leads
- 0.5" digit height
- Size: 2.6" W x 1.0" D x 4.8" H

Includes: 9V battery

Part No.	Description	Price
119212EE	Pocket multimeter	\$19.95

**Pocket Sized**



### 2000-Count Multimeter with Temperature & Frequency Measurement

- 3½ digit LCD (1.0" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 2V – 700V
- DC current ranges: 2mA – 10A
- AC current ranges: 200mA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Capacitance ranges: 2nF – 20µF
- Frequency: 20kHz
- Temperature range: -20°C – 1000°C
- Diode, transistor & continuity testing
- Data hold switch
- Weight: 1.6 lbs.
- Size: 4.0" W x 2.0" D x 8.0" H

Includes: Manual, probes, and 9V battery

Part No.	Mfr. Cross Ref. No.	Price
177480EE	AEEC2890	\$52.49



**More DMMs @ [www.Jameco.com/DMM](http://www.Jameco.com/DMM)**

### 32-Piece Security Bit Set

This security bit set contains most of the bits commonly used in today's electronic projects. Now you can open the cases of these products to repair them without damaging the case or screw.



Includes: Torx bits: #6, #8 and #10; Tri-wing bits: #1, #2, #3 and #4; Security hex bits: 5/64", 3/32", 7/64", 1/8", 9/64", 5/32" 3/16" and 1/4"; Security Torx bits: T8, T10, T15, T20, T25, T27, T30, T35 and T40; Spanner bits: 4, 6, 8 and 10mm; Phillips bits: #1, #2, #3 and #4; and 60mm magnetic bit extension that fits 1/4" hex driver

Part No.	Description	Price
223829EE	32-piece security bit set	\$11.95

### PC Board Drill Bits

- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Shank diameter: .125"
- Use for drilling holes in glass PC boards



Part No.	Drill Dia.	No.	Application	1	10
16619EE	.021"	75	Miscellaneous	\$1.55	\$14.00
16580EE	.040"	59	Plated thru holes	1.75	15.80

### DMMs

### METEX® 2000-Count Multimeter

0.5" Digit Height • LCD Readout



- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 20µA – 20A
- Resistance ranges: 200Ω – 20MΩ
- Diode test and continuity beeper
- Overload protection: 1000VDC/750VAC
- Input impedance: 10MΩ • Auto zeroing
- Surge protection up to 3kV
- Size: 3.5" W x 1.3" D x 6.8" H
- Weight: 1.2 lbs.
- One-year warranty

Includes: Probes, carrying case, manual & 9V battery

Part No.	Product No.	Price
27115EE	M-3800	\$39.95

### 2000-Count Multimeter with Inductance



- Function and range annunciators
- Resolution: 100µV max.
- Data hold •  $Z_{IN} = 10M\Omega$
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 200µA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Capacitance ranges: 2nF – 20µF
- Frequency ranges: 2kHz – 20MHz
- Inductance ranges: 20mH – 20H
- Diode and continuity test
- Size: 4.0" W x 1.5" D x 8.0" H
- Weight: 2.7 lbs.

Includes: Manual, test probes and 9V battery

Part No.	Product No.	Price
147096EE	DX460L	\$94.95

**SALE**



## Extremely Low Cost 7-Function 2000-Count Multimeter

- 3 1/2-digit LCD display (0.5" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 500V
- AC voltage ranges: up to 500V
- DC current ranges: 200µA – 10A
- Resistance ranges: 200Ω – 200kΩ
- Diode, continuity and transistor h<sub>FE</sub> test
- Size: 2.7" W x 1.0" D x 5.0" H



Part No.	Product No.	Price
220855EE	M830B	\$9.95

## 2000-Count Digital LCR Meter

- Inductance ranges: 200µH to 200H
- Capacitance ranges: 200pF to 2000pF
- Resistance ranges: 2mΩ to 20MΩ
- Dissipation factor measurement
- Size: 6.7" L x 3.3" W x 1.4" D
- One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	Price
127538EE	LCR meter	\$149.95



## 2000-Count Multimeter w/ Temperature Measurement

- 8 function/17 ranges
- 2000-count 3 1/2-digit LCD display (0.6" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 600V
- AC voltage ranges: 200V – 600V
- DC current ranges: 2mA – 10A
- Resistance ranges: 200Ω – 2MΩ
- Temperature ranges: -20°C – +1000°C
- Diode, transistor h<sub>FE</sub>, and continuity test
- Data hold switch
- Size: 3.0" W x 1.4" D x 5.7" H

Includes: Test leads, and temperature probe

Part No.	Product No.	Price
220741EE	MAS838 — NEW	\$22.95



## 4000-Count Multimeter w/ RS-232, Temperature & Autorange

- 3 1/2-digit LCD (0.63" digit height)
- RS-232C computer interface
- Resolution: 100µV max.
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 400mV – 750V
- DC/AC current ranges: 400µA – 20A
- Resistance ranges: 400Ω – 40MΩ
- Temperature: -40°C to +1200°C
- Diodes and continuity
- Data hold switch
- Measures transistor h<sub>FE</sub>, frequency, and capacitance
- Autoranging all scale settings
- Size: 3.3" W x 1.8" D x 7.2" H
- One-year warranty

Includes: Manual, software, RS-232 interface cable, temperature probe and probes

Part No.	Product No.	Price
117372EE	M-3850D	\$104.95




## Digital Multimeter Quick Selection Guide

All have VDC, VAC, Resistance and Current

\* See indicated page for more details on each product

### Handheld & Bench-Type Digital Multimeters

Manufacturer No.	Part No.	* Page	Features		Standard Functions		Special Functions		Price					
			Display Count	RS-232 PC Interface	Analog Bargraph	Autorange	True RMS	Capacitance	Inductance	Frequency	Temperature	Diode Test	Logic Test	Transistor h <sub>FE</sub> Test
119212EE	✓ JE110	62	2000									✓		✓
27115EE	✓ Metex M3800	62	2000									✓		✓
177480EE	✓ AEEC2890	62	2000									✓		✓
147096EE	BelMerit DX460L	62	2000				✓	✓	✓			✓	✓	✓
220855EE	✓ M83013	Left	2000									✓		✓
127538EE	—	Left	2000											149.95
220741EE	MAS838	Left	2000				✓	✓	✓	✓	✓	✓		22.95
211650EE	Extech MN26	Below	4000				✓	✓	✓	✓	✓	✓		39.95
137461EE	✓ Metex M3860D	Below	4000			✓	✓	✓	✓	✓	✓	✓		149.95
117372EE	Metex M3850D	Below	4000		✓	✓	✓	✓	✓	✓	✓	✓	✓	104.95
215589EE	Metex M3890D	Below	4000		✓	✓	✓	✓	✓	✓	✓	✓	✓	99.95
144872EE	Metex M4640A	64	20,000	✓	✓							✓		132.95
136590EE	✓ Mastech MY65	64	20,000											73.49
203801EE	8012A <sup>T</sup>	64	2,000											199.95
230586EE	B940 <sup>T</sup>	64	4,000		✓	✓	✓	✓	✓	✓	✓	✓		148.95

<sup>T</sup>Benchtop multimeter

## 4000-Count Multimeter with RS-232, Dual Display & Inductance

- Dual displays for comparative measurements
- 3 1/2-digit LCD (0.6" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 400mV – 750V
- DC/AC current ranges: 400µA – 20A
- Resistance ranges: 400Ω – 40MΩ
- Temp.: -40°C to +1200°C; 1°C res.
- Measures inductance, capacitance, transistor h<sub>FE</sub> and frequency

Includes: 9V battery, software and cable

Part No.	Product No.	Price
137461EE	M3860D	\$149.95



## 4000-Count Multimeter with Triple Display, USB Interface and Temperature

- 3 1/2-digit LCD display with triple display (main/sub1/sub2) and analog bar (0.76" digit height)
- Dual-display readout for temperature in °C and °F
- Data hold, memory, relative offset, recall, range, minimum/maximum hold functions
- Auto power off
- Auto ranging
- Computer interface: USB-A male to USB-B male cable with Windows® 98/ME/2000 software
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 4V – 750V
- DC current ranges: 400µA – 20A
- AC current ranges: 400µA – 20A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 200µF
- Frequency ranges: 10Hz – 10MHz
- Temp. ranges: 0°F – 1400°F (0°C – 760°C)
- Diode, continuity, transistor h<sub>FE</sub>, and logic test
- Size: 3.5" W x 1.7" D x 7.8" H
- Weight: 1.6 lbs.



Includes: Manual, probes, K-type thermocouple, USB-A male to USB-B male cable, software and 9V battery

Part No.	Product No.	Price
215589EE	M-3890D	\$99.95

## 4000-Count, 11-Function Multimeter with Autorange

- 4000-count large LCD display
- Auto ranging with manual override
- AC/DC voltage ranges: 400mV – 600V
- AC/DC current ranges: 400µA – 10A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 200µF
- Frequency ranges: 10Hz – 10MHz
- Temp. ranges: 0°F – 1400°F (0°C – 760°C)
- Diode test, duty cycle and continuity
- Relative zero, data hold, range hold, auto off

Includes: Protective holster with stand, two 1.5V AAA batteries and test leads

Part No.	Description	Resolution	Price
211650EE	Multimeter	0.1mV max.	\$39.95



## 17MHz Logic Probe

- Max input frequency: 17MHz
- Min. pulse width: 30ns
- Pulse flash time: 500ms
- Audible tones for high and low
- TTL threshold: (Lo) 0.8V ±0.2V, (Hi) 2.3V ±0.2V
- CMOS threshold: (Lo) 30% VCC, (Hi) 70% VCC

Part No.	Description	Input Impedance	Pwr. Supply Protection	Price
149930EE	Logic probe	1MΩ	±20V	\$29.95



**Log on today! More Tools and Test Equipment @ [www.Jameco.com](http://www.Jameco.com)**

**METEX® 20,000-Count Multimeter w/ RS-232 & Multi-Display**

- 0.63" digit height
- Multi-display: 4 simultaneous displays for relative and comparative measurements
- Diode/continuity: measures forward resistance of a semiconductor junction in kΩ with a test current of approximately 1mA
- Measures transistor  $h_{FE}$
- DC voltage ranges: 200mV – 1000V
- DC/AC current ranges: 2mA – 20A
- Capacitance ranges: 20nF – 200μF
- Includes: Software, test leads, PC interface cable, manual and 9V battery

Part No. Product No. Size Weight Price

144872EE M-4640A 3.3" W x 1.5" D x 7.5" H 2.0 lbs. \$132.95

**20,000-Count Multimeter**

- Extra-large digits (0.8" digit height)
- Resolution: 10μV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 2V – 700V
- DC/AC current ranges: 2mA – 10mA
- Resistance ranges: 200Ω – 200MΩ
- Capacitance ranges: 200pF – 20μF
- Measures transistor  $h_{FE}$  & continuity
- Hold button

Includes: Boot, 9V battery, probes & manual

Part No. Product No. Price

136590EE MY65 ..... \$73.49

**2000-Count Multimeter**

The Fluke 8012A is a portable, bench-type, digital multimeter with 3½ digit liquid crystal display (LCD).

- Resolution: 100μV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 20μA – 2A
- Resistance ranges: 2Ω – 20Ω (low range) 200Ω – 20MΩ
- Conductance ranges: 2μS – 200nS
- Size: 7.5" W x 9.6" D x 2.5" H • Weight: 2.6 lbs.

† Refurbished

Part No. Product No. Price

203801EE 8012A† ..... \$199.95

**4000-Count True RMS Benchtop Multimeter with RS-232**

- 9 functions, 32 ranges
- 3½-digit backlit LCD display with bargraph
- Auto/manual ranging
- True RMS AC volts and amps
- Resolution: 100μV maximum
- DC voltage ranges: 400mV – 1000V (0.3% accuracy)
- AC voltage ranges: 4V – 750V
- DC/AC current ranges: 4mA – 10A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 40μF
- Frequency ranges: 100Hz – 600kHz
- Diode and continuity test
- Delay hold mode
- Min., max., and relative hold function
- Input voltage: 9V battery or 90-132VAC/ 198-264VAC @ 50-60Hz
- Size: 9.0" W x 9.4" D x 3.3" H • Weight: 3.3 lbs.

Includes: Manual, test leads, power adapter, 9V battery, RS-232 cable and software (98/ME/2000/XP compatible)

Part No. Product No. Price

230586EE B940 ..... \$148.95

**METEX® 4-in-1 Universal System**

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

- Generate 7 forms of waves in 7 frequency ranges from 0.2Hz to 2MHz
- Measure frequency ranges from 5Hz to 1.3GHz
- Generate 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- Ranges: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400Ω to 40MΩ), capacitance (4nF to 400μF) and forward resistance of a semiconductor junction in kΩ
- Size: 14.5" W x 14.0" D x 7.0" H

Includes: Manual, cables and software

Part No. Product No. Weight Price

160864EE MS9150 37 lbs. \$549.95

**We'll Beat Their Prices by 10%!**

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost.

**2MHz Function Generator**

- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- DC offset voltage from 0 to ±10V; can be superimposed to output waveform
- Output volt.: 20Vp-p (open circuit), 10Vp-p (into 50Ω)
- Input voltage: 110V/220V 50-60Hz

Includes: Power cord, BNC to clip cable, fuse & manual

Part No. Product No. Price

66069EE FG8002 ..... \$189.95

**2MHz Function Generator and 2.7GHz Frequency Counter**

Function Generator: (2Hz - 2MHz)

- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges
- Output impedance: 50Ω ±10%
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s

Frequency Counter: (5Hz - 2.7GHz)

- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sinewave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Max. input voltage: channel A: 35Vp-p; channel B: 3Vp-p • Data logging & graphic software
- Input impedance: channel A, 1MΩ; channel B, 50Ω

Includes: Coax & power cable, manual, serial cable and software

Part No. Description Price

192671EE Function generator/counter ..... \$319.95

**Mini DC/AC Current Clamp Meter/Multimeter**

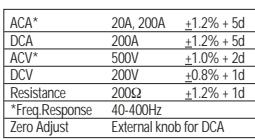
- Bright 1/2" LCD display with DATA HOLD
- 0.5" digit height
- Size: 7.1" L x 1.9" W x 1.4" H

Requires:  
9V battery not included (P/N 151095EE, pg 47)

Includes: Test leads, manual and case

Part No. Description Price

115756EE Mini DC/AC clamp meter ..... \$119.95

**150kHz Sine/Square-Wave Audio Generator**

Small and convenient, this audio generator can be used to test telco and audio equipment.

- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Size: 5.9" L x 3.2" W x 0.8" H
- Output Impedance: 600Ω

Includes: 9VDC battery



Part No. Prod.No. Description Price

166334EE BK3001 Audio generator ..... \$78.95

**METEX® 5MHz Function Generator**

- Waveforms: sine, square, triangle, and ramp
- 0.5 to 5MHz
- 100% DC offset
- Variable duty cycle
- Output impedance: 50Ω
- Coarse and fine tuning
- Size: 10.4" W x 11.7" D x 3.4" H
- Weight: 6.2 lbs. • Two-year warranty

Part No. Prod. No. Description Price

160469EE BK4011A — NEW 0.5 to 5MHz ..... \$314.95

**EZ DIGITAL 20MHz 2-Channel Oscilloscope with 1MHz Function Generator**

- Basic specs same as 136098EE see pg 65
- 7 Function Generator
- Frequency range: sine, triangle, square, TTL pulse
- Output impedance: 50Ω
- Output voltage: 14Vp-p

Part No. Product No. Description Price

94650EE OS5020G Function generator ..... \$529.95



2 Instruments in 1



## Handheld 20MHz Digital Oscilloscope & Multimeter

• 4-in-1: digital oscilloscope, DMM, frequency counter & logic analyzer
• <b>Oscilloscope:</b> 2-channel input, 5mV-2V/div; DC-20MHz (-3dB); 50ns - 0.5μs/div; 20 MS/s sampling rate
• <b>Logic analyzer:</b> 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
• <b>Digital multimeter:</b> 3 1/2-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage 400mV-600V; AC current 40μA-400mA; DC current 400μA-400mA; resistance 40Ω-40MΩ; continuity & diode testing
• <b>Frequency counter:</b> 5Hz-20MHz; 5 digit max.; autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
• Oscilloscope probes: Use P/N 22891EE and 216047EE, pg 67 • One-year warranty
• Battery required for portable use (see below)
• Size: 10.0" x 5.0" W x 2.0" H • Weight: 9.2 lbs.
<b>Includes:</b> Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case
Part No. Description Price
162430EE 20MHz digital scope ..... \$749.95
162974EE Logic probe ..... 59.95
163141EE Rechargeable battery ..... 45.95
162966EE RS-232 cable and software ..... 26.95
221946EE Scope probe ..... 24.95



(Shown w/ logic probe  
P/N 162974EE –  
not included)

**METEX®**

## 20MHz 2-Channel Analog Oscilloscope with Built-in Component Checker

• 6" rectangular CRT with internal graticule
• Built-in component checker/tester for resistors, capacitors, coils, diodes
• Vertical sensitivity: 5mV/div to 20V/div in 12 calibrated steps (1-2-5 sequence)
• Input impedance: 1MΩ, 20pF
• Max. input (vertical amplifier): 300VDC or AC peak
• Horizontal sweep time: 0.2μs/div to 0.5s/div in 20 calibrated steps (1-2-5 sequence)
• Internal trigger sensitivity: 20Hz to 20MHz
• Size: 17" L x 14" W x 5.75" H • Weight: 15.5 lbs.
<b>Includes:</b> Two X1/X10 60MHz probes, power cord, and operations manual
Part No. Product No. Price
201857EE P-3502C ..... \$394.95



**Protek**

• 3 position switch: x1, ref, x10
• Bandwidth @ 3dB: 10MHz (x1); 150MHz (x10)
• Loading: 57pF, 1MΩ (x1); 15pF, 10MΩ (x10)
• Low-resistance gold contacts
• Cord length: 5'
Part No. Product No. Price
174473EE 4901-02 (150MHz) ..... \$49.95

## PROBE MASTER® Oscilloscope Probe

7-Piece Kit



Designed for use with Tektronix and Hewlett Packard oscilloscopes.
• 3 position switch: x1, ref, x10
• Bandwidth @ 3dB: 10MHz (x1); 150MHz (x10)
• Loading: 57pF, 1MΩ (x1); 15pF, 10MΩ (x10)
• Low-resistance gold contacts
• Cord length: 5'
Part No. Product No. Price
174473EE 4901-02 (150MHz) ..... \$49.95

More Test Equipment @ [www.Jameco.com](http://www.Jameco.com)

## 20MHz 2-Channel Oscilloscope



**EZ DIGITAL**

Blue CRT for higher resolution!



- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2μs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50-60Hz, 45W

**Includes:** Two X1/X10 40MHz probes, power cord, manual, and block diagram

Part No.	Prod. No.	Description	Price
136098EE	OS5020	20MHz scope	\$399.95

## 20MHz 2-Channel Analog Oscilloscope with Alt-Mag and 1mV/div Sensitivity



**Protek**

**NEW**

- Large 6" CRT with internal graticule
- Alt-Mag sweep for simultaneous displays of the main and X5 magnified trace
- Auto-focus
- Input voltage: 100V, 120V, 220V, 240V @ 50-60Hz (selectable)
- Size: 14.8" L x 13.4" W x 5.5" H
- Weight: 24 lbs.

### Vertical Amplifier

- Sensitivity – 1mV/div to 1V/div (X5 Mag); 5mV/div to 5V/div in 10 steps (1-2-5 seq.)
- Bandwidth: (-3dB): DC to 20MHz
- Input impedance: 1M ohms, 25pF
- Maximum input voltage: 400V (DC or AC peak)

### Horizontal Sweep

- Sweep time: 0.1μs/div to 0.2s/div in 20 steps (1-2-5 seq); X5 mag: 20nS/div to 40mS/div

### Triggering

- Sensitivity: Internal – DC to 2MHz: 2 divisions; 2MHz to 20MHz: 3 divisions

**Includes:** X1 and X10 probes, power cord & manual

Part No.	Product No.	Price
220679EE	PROTEK 6502 — NEW	\$429.95

## 100MHz 2-Channel Analog Oscilloscope

**EZ DIGITAL**

**NEW**

- 2-channel dual trace
- Delay line
- Auto focusing according to intensity
- Size: 16.9" L x 12.6" W x 5.5" H
- Weight: 22.8 lbs.
- Two-year warranty

**Includes:** Two (X1/X10) 100MHz probes, power cord, and operations manual

Part No.	Product No.	Price
121179EE	OS5100 — NEW	\$999.95

## 100MHz Delayed Sweep Analog Oscilloscope w/ Frequency Counter

### 2 Channel, 4 Trace

- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 2MHz bandwidth; 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC
- Rise time: 3.5ns or less • Weight: 17.6 lbs.



**Includes:** Two X1/X10 100MHz probes, power cord, and operations manual

Part No.	Product No.	Price
190932EE	OS5100RB — NEW	\$1,199.95

## 50MHz Digital PC-Based Oscilloscope, Spectrum Analyzer and Transient Recorder



**Vellemann**

- Sampling frequency: 1.25kHz-50MHz real-time; 1GHz repetitive
- Input impedance: 1MΩ/30pF
- Parallel port interface
- Inputs: 2 channels, 1 external trigger input
- Max. input voltage: 100V (AC and DC)
- Power required: 9V to 10V @ 1000mA (recommend P/N 100888EE, pg 38)

### Oscilloscope:

- Timebase: 20ns-100ms per division
- Input sensitivity: 5mV-15V per division w/auto step-function • Rec.: 4096 samples per channel

### Spectrum Analyzer:

- Frequency range: 0 to 25MHz

### Transient Recorder:

- Time scale: 20ms/div-2000s/div
- Max. recording time: 9.4 hours/screen
- Max. number of samples: 100/s

**System requirements:** IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM

**Includes:** 2 test leads, PC parallel cable, manual and CD-ROM software

Part No.	Product No.	Price
200184EE	PCS500AU	\$478.95

## 150-Watt Linear Power Supply

### 15VDC @ 10A

- Built-in fan
- Output voltage: 2VDC to 15VDC
- Output current: 15A max.
- Constant voltage operation
- Color-coded terminals for positive and negative terminals, voltage adjustment knob
- Over-voltage, over-current, short-circuit protection
- Cigarette lighter output current plug
- LED indicator for power and warning
- Current and voltage panel meter
- Input voltage: 110VAC @ 60Hz
- Size: 5.7" L x 6.2" W x 4.0" H • Weight: 12.0 lbs.



**Part No.** Mfr. Cross Ref. No.

175265EE	DPS150A	\$149.95
----------	---------	----------

**150-Watt Analog Power Supply****50VDC @ 3A**

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Size: 9.0" L x 4.75" W x 7.5" H
- Weight: 12.3 lbs.

**100W to 600W Benchtop Power Supplies**

- Voltage and current adjustable
- Current restricted and short-circuit protection
- Input voltage: 110/220 ±10% VAC

**Analog display power supplies**

- Accuracy: 2.5%

**Digital display power supplies**

- Voltage accuracy: 1% + 2 digits
- Current accuracy: 1.5% + 2 digits



207618EE

207706EE

211705EE

**150-Watt Digital Power Supply****30VDC @ 5A**

- Adjustable voltage/current outputs
- Constant voltage and current operation
- LCD displays for both current and voltage
- Coarse and fine adjustment knobs for current and voltage
- Color-coded terminals for positive, negative and ground connections
- 2A @ 250V fuse
- Input voltage: 110/220VAC @ 50-60Hz (switchable)

**Part No. Description Price**

153242EE 30VDC @ 5A \$234.95

**225-Watt Analog Power Supply****15VDC @ 15A**

- Output voltage: 9VDC to 15VDC
- Output current: 25A max. (22A continuous @ 13.8VDC)
- Constant voltage operation
- Over-voltage protection @ 16.5V
- Short-circuit protection @ 27.5A
- Color-coded adjustment knob and output terminals for voltage
- Cigarette lighter plug for current output
- Power and fan LED indicator
- Built-in fan
- Voltage and current panel meter
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)
- Size: 5.6" L x 6.2" W x 4.0" H
- Weight: 3.8 lbs.

**Part No. Mfr. Cross Ref. No. Price**

175257EE SPS250A — NEW \$159.95

**250-Watt Analog Power Supply****50VDC @ 5A**

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded adjustment knobs for voltage, current, and fine tuning
- Color-coded terminals for ground, positive, negative
- 5A @ 250V fuse
- Isolated ground
- Input voltage: 110VAC @ 50-60Hz
- Size: 4.9" L x 7.7" W x 6.7" H
- Weight: 13.8 lbs.

**Part No. Mfr. Cross Ref. No. Price**

175249EE DPS5050 \$189.95

**Single Output**

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W" x H" x D")	Weight (lbs.)	Price
301920EE	HY1503C	2-Analog	45	15/5	3.8 x 6.3 x 9.1	8.8	\$99.95
301866EE	HY3003D	2-Analog	90	30/3	5.4 x 6.2 x 11.5	14	179.95
207618EE	HY3005C	2-Analog	150	30/5	5.4 x 6.2 x 11.5	14	159.95
207626EE	HY3010C	2-Analog	300	30/10	10.4 x 6.5 x 14.4	28	299.95
207693EE	HY5002	2-Digital	100	50/2	5.4 x 6.2 x 11.5	13	189.95
301911EE	HY3005D	2-Digital	150	30/5	5.4 x 6.2 x 11.5	13	224.95
207706EE	HY5003	2-Digital	150	50/3	5.4 x 6.2 x 11.5	14	249.95
207600EE	HY5005	2-Digital	250	50/5	10.4 x 6.5 x 14.4	28	299.95
207634EE	HY3010	2-Digital	300	30/10	10.4 x 6.5 x 14.4	32	399.95
207685EE	HY3020	2-Digital	600	30/20	10.4 x 6.5 x 14.4	46	499.95

**Multiple Output**

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W" x H" x D")	Weight (lbs.)	Price
211721EE	HY3002-2	2-Digital	120	0-30/2; 0-30/2	10.4 x 6.5 x 14.4	23	\$249.95
211705EE	HY3002D-2	4-Digital	120	0-30/2; 0-30/2	10.4 x 6.5 x 14.4	23	269.95
211692EE	HY3003D-2	4-Digital	180	0-30/3; 0-30/3	10.4 x 6.5 x 14.4	28	289.95
211730EE	HY3003-2	2-Digital	180	0-30/3; 0-30/3	10.4 x 6.5 x 14.4	28	299.95
211713EE	HY3003-3	2-Digital	195	0-30/3; 0-30/3; 5/3	10.4 x 6.5 x 14.4	29	319.95
211684EE	HY3003D-3	4-Digital	195	0-30/3; 0-30/3; 5/3	10.4 x 6.5 x 14.4	29	329.95
301946EE	HY3005D	4-Digital	300	0-30/5; 0-30/5	10.4 x 6.5 x 14.4	29	349.95
301954EE	HY3005D-3	4-Digital	315	0-30/5; 0-30/5; 5/3	10.4 x 6.5 x 14.4	29	369.95
301962EE	HY5003-2	2-Digital	300	0-50/3; 0-50/3	10.4 x 6.5 x 14.4	29	339.95

**30-Watt Digital Power Supply****1.5VDC to 30VDC @ 1A**

- Single output with adjustable 1.5VDC to 30VDC
- 1A fixed current output
- Large digit backlit display
- Overload and short circuit protection
- Input voltage: 85-264VAC @ 47-63Hz
- Output terminals • ON/OFF switch
- Size: 5.5" L x 5.2" W x 1.6" H • Weight: 1.2 lbs.

**Part No. Product No. Price**

301971EE PSU-130 \$79.95

**Resistance and Capacitance Decade Substitution Boxes**

Wide-range decade substitution boxes for product design or calibration checks.



- Light durable construction
- Case may be grounded separately
- Three binding posts permit isolated substitutions
- Size: 4.7" W x 5.7" H x 1.4" D
- Weight: 0.7 lbs.

**211668EE:**

- 1% resistance substitution from 1Ω to 11.111110MΩ
- 7 decade ranges of resistance
- Values can be changed in 1Ω increments



211668EE

**211676EE:**

- 5% capacitance substitution from 100pF to 11,111μF

- 5 decade ranges of capacitance



211676EE

**Part No. Description**

211668EE Resistance \$98.95

211676EE Capacitance 128.95

**Modular Cable Tester with Remote Terminator**

- Check for cable continuity, miswiring, open, short, grounding and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45-BNCM & BNC F-F
- On-board connectors: 2 RJ45F (tester) and 1 RJ45F (remote)
- Size: 4.0" L x 2.5" W x 1.0" H (Main console)
- Size: 4.0" L x 1.3" W x 1.0" H (Remote) • Wt.: 0.7 lbs.

**Includes:** Manual and test cables**Part No. Description Price**

145710EE Modular cable tester \$84.95

**BNC to Double Binding Posts – Dual Banana**

- Red/black design



125233EE

**Part No. Description**

125233EE BNC-female \$4.95

99354EE BNC-male 4.76

5.29

## Double Binding Posts – Dual Banana

- Red/black design
- Screw-mount
- 0.72" between posts
- Size: 1.6" L x 1.4" W



Part No.	Description	1	10
125196EE	Screw mount bind post	\$3.95	\$3.45

## BNC to Standard Double Banana Plugs

Part No.	Description	1	10
11439EE	BNC banana plug (F)	\$4.95	\$4.49
125225EE	BNC banana plug (M)	5.49	4.95

Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1	10
11439EE	BNC banana plug (F)	\$4.95	\$4.49
125225EE	BNC banana plug (M)	5.49	4.95

## 1" Screw-Type Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut
- Solder tab hole: 0.06" Dia.
- Size: 1.0" L x 0.5" Dia.



Requires: 0.32" mounting hole

Includes: One red and one black insulated post

Part No.	Description	1	10
71239EE	Binding posts (2)	\$.99	\$.85

## 1 1/16" Banana Plugs

- .1875" lead opening
- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- Insulating sleeve is threaded to banana plug body



Includes: One red and one black plug

Part No.	Description	Size	1	10
72194EE	Banana plugs	1.6" L x 0.4" Dia.	\$1.59	\$1.49

## Solderless Banana Plug Sets

Part No.	Description	Size	1	10
159863EE	Solderless banana plug set	1.6" L x 0.4" Dia.	\$1.59	\$1.49
159855EE	Solderless banana plug set	1.6" L x 0.4" Dia.	3.29	2.99
159927EE	Solderless double banana plug w/ wire guide	1.6" L x 0.4" Dia.	4.69	4.38

Part No.	Product No.	1	10
159863EE	1825-02 set	\$2.65	\$2.50
159855EE	1325-02 set	3.29	2.99
159927EE	MDP-02 set	4.69	4.38



See page 92 for our new LED Tester Kit.

COLOR CODE LEGEND...  
NEW SALE REFURBISHED CLOSEOUT

## BNC to Clip Test Cables



11421EE

11463EE

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video & test equipment.

- Micro-clip or mini-clip
- Length: 39"

Part No.	Description	1	10
11421EE	Micro-clip RG174	\$3.99	\$3.19
11463EE	Mini-clip RG174	4.39	3.99



## Banana to Banana Test Leads

- Stackable
- 9.8" long
- 18 AWG wire
- Color coded: 2 each red, yellow, blue, black, white
- 10 per package

Part No.	Description	1	10
77841EE	Test leads	\$22.95	\$20.69

## Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.

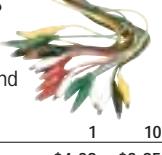


- Set of five: red, blue, green, black and yellow
- 14" L clips on both ends
- 26 AWG to 300V CSA/UL approved wire

Part No.	Description	1	10
135298EE	Mini test leads	\$11.49	\$10.39

## Alligator Clip Leads

- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors



Part No.	Description	1	10
10444EE	Alligator leads	\$4.39	\$3.95

## Breadboard-Pin to Breadboard-Pin Test Leads



- 4 each red, yellow, blue, black, white
- 5.9" long
- 20 AWG wire
- 20 per package

Part No.	Description	1	10
77825EE	Breadboard pin leads — NEW	\$12.95	\$11.69

## Alligator and Claw Clips



Jameco offers different types of clips for different applications. Claw clips with teeth on three sides of the jaw for better grip and screw terminal connections. Steel alligator clips with either solder/crimp connection or barrel/screw connection.

- 248920EE: 1.2" L x 0.3" W
- 256524EE: 1.9" L x 0.2" W
- 248938EE: 1.6" L x 0.3" W
- 248989EE: 2.1" L x 0.4" W
- Prepackaged: order in increments of 2

Part No.	Description	2	4	10
248920EE	Mini-alligator clip solder/crimp	\$.28	\$.25	\$.23
256524EE	Alligator clip barrel/screw	.45	.38	.35
248938EE	Alligator clip solder/crimp	.52	.48	.42
248989EE	Claw clip 10A, screw terminal	.45	.44	.40
249009EE	Claw clip 20A, screw terminal	.55	.50	.45
248997EE	Claw clip 30A, screw terminal	.69	.62	.55

### The Best Values

We search the world to find you the best values!

### The Lowest Prices

We guarantee the lowest price in any catalog.

### 60% More Products

We've added 60% in the last year.

### Immediate Availability

Same day shipping on orders placed before 6pm EST.

Awesome Products at Your Fingertips, at the NEW Jameco.com!

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

**Alc Alert Breath Alcohol Detector**

Alc Alert displays blood alcohol level, showing when it's not safe to drive.\*

No one gets behind the wheel intending to wreck lives. But each year thousands do just that when they misjudge the amount of alcohol in their system. Now there's a simple way to make sure it doesn't happen to you or those you care about.\* Alc Alert quickly and discreetly checks blood alcohol level in less than 10 seconds. Just blow as if cooling soup on a spoon. At the sound of 3 beeps, stop and read the results. It's that easy. Buy one for yourself. Give them to everyone you cherish. Makes a thoughtful gift. Party guests actually have fun testing themselves.

Gas sensor digital technology measures blood alcohol level (BAC) from .0% to .12%. The backlit display can be read in a dark car. Runs on 2 AAA batteries (included). Size: 3.5" x 1.25" x 0.5".

Part No.	Description	Price
222332EE	Alc Alert breath alcohol detector	\$39.95

\* No device, no matter how sensitive, can substitute for common sense. If you think your ability to drive may be impaired even slightly, no matter what the test results show—don't drive.



Just breath and get results in seconds.

**Hygro + Infrared Thermometer**

Combination humidity meter plus infrared thermometer features a super large backlit dual display. The primary display is user selectable for IR or humidity, while the secondary display always displays ambient temperature. The infrared thermometer has a built-in laser pointer with an 8:1 distance to target ratio.

- Remote humidity sensor with 39" coiled cable
- Humidity ranges: 10.0 to 95.0% with  $\pm 3.5\%$  accuracy •  $^{\circ}\text{C}/^{\circ}\text{F}$
- Air temperature ranges:  $-4^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ) with  $\pm 3^{\circ}\text{F}/2^{\circ}\text{C}$  accuracy
- IR temperature ranges:  $-58^{\circ}\text{F}$  to  $+932^{\circ}\text{F}$  ( $-50^{\circ}\text{C}$  to  $+500^{\circ}\text{C}$ );  $\pm 2\%$  or  $\pm 4^{\circ}\text{F}/2^{\circ}\text{C}$  accuracy
- Auto power off • Data hold and MAX
- Size: 2.8" W x 1.4" D x 5.9" H • Weight: 0.5 lbs.

**Includes:** Stand, holster, probe, battery and case

Part No.	Description	Price
285974EE	Infrared thermometer	\$148.95

**We'll Beat Their Prices by 10%!**

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost.

Just call us. It's that simple!

**Jameco — The #1 Source of Electronic Components for Hobbyists****No-Touch Thermometer**

Hot no-touch thermometer technology at a very cool price.

Take exact temperature readings with this tiny beauty in tight, unreachable or hazardous locations, from a safe distance and without the need for contact with the target. Just point the integrated laser pointer at the spot you want to measure and get a precise readout on the large, digital display. The data hold/max hold allows easy recording and comparison measurements, and a wide temperature range ( $-58^{\circ}\text{F}$  to  $+518^{\circ}\text{F}$ ) gives you maximum flexibility. At just 2.7 ounces you can carry it anywhere. Flip a switch to shift from  $^{\circ}\text{F}$  to  $^{\circ}\text{C}$  for different applications. The 6:1 field of view can pinpoint hot spots easily. Works with two included AAA batteries.

Part No.	Description	Price
219361EE	Extech no-touch thermometer	\$59.99

Pocket Size



3.8"

Best Seller

**Electromagnetic Radiation Meter**

Electromagnetic radiation is all around us, some of it not so friendly; but until now there's never been an easier, more portable device to detect and measure it. Whether you're concerned about your kid's playground near the power station, the laboratory, microwave oven emissions, or searching for clandestine surveillance devices; the ZAP Checker can give you a new measure of peace of mind. Its portability and multiple settings allow you to search out EMR whenever and wherever you want, from your home or office environments to hotel suites and conference rooms. Range 10MHz to 4.5GHz.

Part No.	Description	Price
217808EE	ZAP checker	\$129.95



Best Seller

**Non-Contact Infrared Thermometer w/ Laser Pointer**

- Built-in laser pointer identifies target area
- Field of view: 6:1 (6" distance measures 1" target)
- Automatic data hold when trigger released and auto power off
- Fixed 0.95 emissivity covers 90% of surface application
- Temperature range:  $0^{\circ}\text{F}$  to  $600^{\circ}\text{F}$  ( $-20^{\circ}\text{C}$  to  $320^{\circ}\text{C}$ )
- Basic accuracy:  $\pm 2\%$  of reading
- 2000-count backlit LCD display
- Audible and visible over-range indicators
- Size: 8.3" L x 3.5" W x 1.5" D • Weight: 0.4 lbs.

**Includes:** 9V battery

Part No.	Product No.	Price
211588EE	42529	\$88.95



EXTECH  
INSTRUMENTS

NEW



EXTECH  
INSTRUMENTS

**Digital Compass and Stopwatch**

Find your way with this digital compass and stopwatch combo.

This amazing digital compass will point you in the direction of high adventure. With a  $2^{\circ}$  of accuracy, it's smart enough to know exactly where you're heading, anywhere in the world, anytime. And speaking of time, an integrated stopwatch, timer and 12/24 hour clock are also included in this compact, water-resistant little wonder. As a primary guide or as a backup to your GPS, you'd be lost without it!

Part No.	Description	Price
236793EE	Digital compass & stopwatch	\$9.95



SALE

**Temperature/Humidity Meter with Min/Max Memory**

- Displays (%) relative humidity and temperature ( $^{\circ}\text{C}/^{\circ}\text{F}$ ) simultaneously
- Min./Max. memory on both relative humidity and temperature with reset function
- Temperature range:  $14^{\circ}\text{F}$  to  $140^{\circ}\text{F}$  ( $-10^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ )
- Humidity range: 10% to 99%
- 1" high readout
- Size: 4.3" L x 3.9" W x 0.8" Thick

**Includes:** Built-in tilt stand, AAA battery, and wall mounting bracket

Part No.	Description	Price
198045EE	Temp./humidity meter	\$38.95

**Digital Light Meter**

- Lux and footcandle
- Range: 0 - 50,000 Lux 0 - 5,000 Fc
- Analog output connections
- Separate light sensor for optimum location sampling
- Dimensions (sensor probe): 3.2" L x 2.2" W x 0.5" H

Part No.	Description	Price
131764EE	Digital light meter	\$99.95

## Programming & Customizing PICmicro Microcontrollers

### Second Edition

**McGraw-Hill** Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices. (1190 pages, 2001)



Includes: CD-ROM and PIC PCB

Part No.	Description	Price
183046EE	PICmicro Programming	\$49.95

## PIC Microcontroller Project Book

### Comprehensive Beginner's Guide

**McGraw-Hill** Provides you with hands-on directions for putting Microchip's RISC-based chips with up to 8K of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000)



Part No.	Description	Price
174650EE	PIC Beginner's Guide	\$29.95

## PIC BASIC Programming and Projects

**Newnes Publications** The BASIC language, as used by the most popular PIC compilers, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001) • Size: 6.1" x 9.2" • Weight: 0.8 lbs.



Part No.	Description	Price
200168EE	PIC BASIC Programming	\$37.95

## TTL Logic Data Book

**Texas Instruments** Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)



Part No.	Description	Price
88225EE	TTL Logic Data Book	\$34.95

## Mobile Robotic Car Design Book

**McGraw Hill** – This book describes a complete detail that should be clear enough for a hobbyist of how to build a robotic car, provides detailed photographs, schematics, list of vendors for parts, and software code for the processor and the digital signal processor with an explanation of what the code does and why. Printed circuit board files are free, and can be downloaded from [www.books.mcgrawhill.com/authors/KachrooMellodge](http://www.books.mcgrawhill.com/authors/KachrooMellodge). (278 pages, 2005)



Part No.	Description	Price
313592EE	Mobile Robotic Car Design — NEW	\$23.95

## Robot Builder's Source Book

### McGraw-Hill

Everything you need to find and acquire common and uncommon robotic parts and supplies.

Jameco and over 2500 mail order suppliers and other sources, including local and international businesses all cross-referenced and categorized to make your search quick and easy. (711 pages, 2003)

- Size: 8.5" x 10.0"
- Weight: 3.9 lbs.

Part No.	Description	Price
213461EE	Robot Builder's Source Book	\$16.95



**SALE**

Price

\$16.95

## Making Your Own Printed Circuit Board Book

### JV Enterprises

No darkroom or special equipment needed. Shows steps for drilling and shaping your printed circuit board and the materials you will need. (91 pages, 2004)

- Size: 8.5" x 11"
- Weight: 0.5 lbs.

Part No.	Description	Price
141524EE	Making PCBs Book	\$19.95



Price

\$19.95

## Parallel Port Complete

**Lakeview Research** Hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

- Windows® 3.1 & Windows® 95
- PC to PC links
- Selecting cables • Size: 7.0" x 10.0" • Wt.: 1.4 lbs.

Includes: 3.5" diskette

Part No.	Description	Price
132821EE	Parallel Port Complete — NEW	\$32.89



Price

\$32.89

## Troubleshooting & Repairing Consumer Electronics without a Schematic

**TAB Publishing** Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997) • Size: 7.4" x 9.3" • Weight: 1.1 lbs.

Part No.	Description	Price
136080EE	Troubleshooting & Repairing — NEW	\$24.95



Price

\$24.95

## Electric Motors and Control Techniques

### TAB Publishing

Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)

Part No.	Description	Price
137162EE	Electric Motors & Control	\$24.95



Price

\$24.95

## Complete Embedded Ethernet and Internet Book

### Lakeview Research

A guide to designing and programming embedded systems to communicate in local Ethernet networks and on the Internet. This book is organized for anyone who wants to design, program, or learn about networking with embedded systems. Topics include networking basics, hardware options in building a network, using internet protocol in local and internet communications, serving web pages, etc. (482 pages, 2003)



Part No.	Description	Price
236945EE	IC Design Projects Book	\$44.95

## Everything You Need To Develop Custom USB Peripherals Book

### Lakeview (2nd Edition)

This USB Complete book provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)

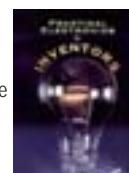


Part No.	Description	Price
171900EE	Complete USB Book	\$49.95

## Practical Electronics Book for Inventors

### McGraw-Hill

Provides information needed for practical use in a format you can understand. With hand-drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares with other similar devices. Provides an easy-to-understand overview of basic components, resistors, diodes, capacitors, inductors, rectifiers, amplifiers, voltage regulators, discrete passive and active devices and so on. (604 pages, 2000)



Part No.	Description	Price
174529EE	Practical Electronics	\$39.95

## How to Test Almost Everything Electronic

### TAB Publishing

Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)



- Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	Price
126199EE	How to Test Everything	\$17.95

## Electronic Pocket Reference

### Third Edition

**McGraw-Hill Publishing** A pocket reference manual that provides definitions, passive component equations and color coding, parameters of standard semiconductors, linear circuits, filters, power supply and regulation, electronic measurement and mathematical tables and formulas. (529 pages, 2000)



Part No.	Description	Price
174481EE	Electronics Pocket Ref.	\$29.95

COLOR CODE LEGEND...

**NEW** SALE REFURBISHED CLOSEOUT

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

**Intel® Processor-Based Motherboards**

These Intel® motherboards provide the ultimate in speed, compatibility and confidence, making them ideal for desktop systems and embedded solutions alike. Pentium® 4 and Celeron® based configurations.



♦ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



285106EE



285093EE



285077EE



285085EE



285114EE



285157EE

Jameco Part No.	Mfr.	Model No.	Internal Name	Board Style	Processor Support	Support FSB (MHz)	Chipset	On-Board Graphics	Memory Type (SDRAM)	Max. Mem/Slots	Expansion Slots		On-Board Audio	USB Ports	HDD Support	On-Board LAN	Board Size	Wt. (lbs.)	Warranty	Jameco Part No.	Pricing	
																					1	10
285157EE	Intel	SE7505VB2 ♦ NEW	Vero Beach	Extended ATX	Dual Xeon™	533/400	IE7505	ATI RageXL with 8MB mem.	DDR 200/266	8GB / 4	2 x 64bit/100MHz PCI-X 1 x 64bit/66MHz PCI-X 2 x 32bit/33MHz; AGP 8x/4x	↔	None	USB 2.0 6 Back / 2 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/1000 MT Server Network PRO 100 Server Connections	12" x 13"	3.8	3 years limited	285157EE	\$474.15	\$469.79
285131EE	Intel	S875WP1 ♦ NEW	Winter Park	ATX	Pentium® 4	533	i875P	ATI RageXL with 8MB mem.	DDR 400/333/266	4GB / 4	3 x 32bit/33MHz AGP 8x/4x		None	USB 2.0 4 Back / 2 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/1000 XT Server Network PRO 100 Server Connections	12" x 9.6"	2.7	3 years limited	285131EE	256.35	245.99
285106EE	Intel	BOXD875PBZLK ♦	Bonanza	ATX	Pentium® 4	800/533	i875P	None	DDR 400/333	4GB / 4	5 PCI 32bit/33MHz AGP 8x/4x		None	USB 2.0 6 Back / 2 Front	2-ports SATA150 (1.5Gb/s) RAID 0; 2-ports ATA 100	Intel® PRO/1000CT (Gigabit)	11.52" x 9.6"	2.9	3 years limited	285106EE	205.89	185.29
285093EE	Intel	BOXD865PERLL ♦	Rock Lake	ATX	Pentium® 4 / Celeron®	800/533/400	i865P	None	DDR 400/333/266	4GB / 4	5 PCI 32bit/33MHz AGP 8x/4x	↔	Full 6-channel surround sound + optical output with jack sensing	USB 2.0 4 Back / 4 Front	2-ports SATA150 (1.5Gb/s) RAID 0; 2-ports ATA 100	PRO/100 (10/100)	12" x 9.6"	3.1	3 years limited	285093EE	142.39	128.15
285077EE	Intel	BOXD865GBFL ♦	Bayfield	ATX	Pentium® 4 / Celeron®	800/533/400	i865G	Intel Extreme Graphic 2	DDR 400/333/266	4GB / 4	6 PCI 32bit/33MHz AGP 8x/4x		Flexible 6-channel audio with jack sharing	USB 2.0 4 Back / 4 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/100 (10/100)	11.6" x 9.6"	2.8	3 years limited	285077EE	131.05	123.49
285085EE	Intel	BOXD865GLCL ♦	La Crosse	MicroATX	Pentium® 4 / Celeron®	800/533	i865G	Intel Extreme Graphic 2	DDR 400/333	4GB / 4	3 PCI 32bit/33MHz AGP 8x/4x		Full 6-channel with jack sensing	USB 2.0 4 Back / 4 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/100 (10/100)	9.6" x 9.6"	2.5	3 years limited	285085EE	142.09	134.95
285122EE	Intel	BOXD845GVSRL ♦	Seabreeze	MicroATX	Pentium® 4 / Celeron®	533/400	i845GV	Intel Extreme Graphic	DDR 333/266	2 GB / 2	3 PCI 32bit/33MHz	↔	Integrated AC97 audio	USB 2.0 4 Back / 4 Front	2-ATA 100 / 66	Intel® PRO/100 (10 / 100)	9.6" x 8.2"	2.1	3 years limited	285114EE	79.95	74.95

**Intel® Desktop Processors**

Part No.	Product Name	Mfr. Part No.	Speed (GHz)	FSB (MHz)	Cache	Package	Price
283274EE	Pentium 4†	BX80546PG3200E ♦	3.2	800	1MB	mPGA-478	\$311.59
283311EE	Pentium 4†	BX80532PG3200D ♦	3.2	800	512KB	mPGA-478	367.09
283338EE	Pentium 4†	BX80532PE3066D ♦	3.06	533	512KB	mPGA-478	293.75
283320EE	Pentium 4†	BX80532PG3000D ♦	3.0	800	512KB	mPGA-478	293.55
283291EE	Pentium 4†	BX80532PG2800E ♦	2.8	800	1MB	mPGA-478	257.95
283354EE	Pentium 4†	BX80546PE2800D ♦	2.8	533	512KB	mPGA-478	247.09
283418EE	Intel Celeron†	BX80532RC2600B ♦	2.6	400	128KB	mPGA-478	126.35
283397EE	Pentium 4†	BX80532PG2400D ♦	2.4	800	512KB	mPGA-478	205.95
283434EE	Intel Celeron†	BX80532RC2400B ♦	2.4	400	128KB	mPGA-478	99.49
283451EE	Intel Celeron†	BX80532RC2000B ♦	2.0	400	128KB	mPGA-478	91.09

♦ These products ship from a separate warehouse and may not ship same day.

Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

† Includes active heat sink \* Hyper-threading technology

**Legacy Intel® Desktop Processors**

Part No.	Description	Speed (MHz)	Package	1	10
311204EE	Intel Celeron processor NEW	800	FCPGA-370	\$99.95	\$94.95
311212EE	Intel Celeron processor NEW	566	FCPGA-370	47.79	45.39
183118EE	Pentium III processor	600	Slot 1	\$117.59	99.95
183100EE	Pentium II processor	400	Slot 1	99.95	74.95
151651EE	Pentium II processor	300	Slot 1	89.95	85.45
190060EE	Pentium II w/ heat sink	233	Slot 1	89.95	79.95
150501EE	Pentium MMX processor	233	376/PGA	69.95	62.95
140054EE	Pentium MMX processor	200	376/PGA	49.95	37.45
130841EE	Pentium processor	166	296/PGA	49.95	37.45
130833EE	Pentium processor	133	296/PGA	39.95	35.95
118421EE	Intel 486DX2 processor	66	168/PGA	19.95	14.96

\* Pull = Extra Savings

**Thermoelectric Cooler Chips**

- Cools down to -30°C (dependent on external temp.)
- Temperature max. = 60°C
- 20 AWG wire leads, 4" long
- Heat or cool by changing direction of current
- Operating voltage: 15.4VDC nominal

Part No.	Mfr. Cross Ref. No.	Couples*	Watts	Voltage (max.) DC	Current (max.) A	Size (L" x W" x T")	Pricing	1	10
172030EE	TEC30	71	19.7	8.4	4	1.2 x 1.2 x 0.2	\$19.95	\$17.95	
172048EE	TEC40	127	35.6	15.4	4	1.6 x 1.6 x 0.2	25.95	22.95	
172056EE	TEC50	127	79.1	15.4	8	2.0 x 2.0 x 0.2	33.75	29.35	

\* Couples: # of P&N type semiconductor pairs connected electrically in series



**19" Rack Mount Enclosures**

Perfect for equipment setup in home, studio or laboratory.

- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Top, bottom, sides durable 0.035" steel
- Front panel: 0.12" Thick
- Black front panel
- All enclosures have handles except P/N 132812EE



**Includes:** Mounting screws

Part No.	Dimensions (In.)			Weight (lbs.)	Pricing	
	H1	H2	D		1	10
132812EE	1.73	1.25	9.75	6.2	\$39.95	\$35.99
132821EE	3.46	3.0	9.75	7.9	47.95	43.49
132839EE	3.46	2.88	11.75	9.1	53.95	48.59
132847EE	5.22	4.75	11.75	10.6	63.95	55.99
132855EE	5.22	4.75	13.50	11.8	73.95	66.95

**Removable HD Rack and Insert**

- For quick drive swapping
- Removable storage for 3.5" IDE drive
- Power LEDs
- Keylock for security

**196040EE:**  
• Size: 5.8" W x 8.5" D x 1.5" H  
• Weight: 1.2 lbs.



**196031EE:** • Size: 4.1" W x 7.5" D x 1.6" H • Wt: 0.8 lbs.

**Includes:** Inner cable with IDE connector

Part No.	Description	1	10
196040EE	IDE rack w/ insert	\$27.95	\$20.95
196031EE	Insert for 196040EE	19.95	16.99

**ATEN RS-232 to RS-485/422 Bidirectional Converters**

- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- Point-to-point and multidrop operations
- RS-485: terminal block & RJ11 connections
- RS-232: DB25 female connector
- Input: 110VAC

**197931EE:** port powered (power adapter not included)

**197931EE:** port powered (power adapter not included)

**122956EE:** features RS-485SI optical isolation: 2000V



117701EE

Part No.	Description	Price
117701EE	RS-232-485/422	\$57.95
197931EE	RS-232-485/422	69.95
122956EE	RS-232-485/422 OPT ISO	119.99

**Short Haul Modem**

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)



ATEN

Part No.	Description	Price
116581EE	Short haul modem	\$29.95

**More Computer Products and Accessories Available on Our Website — [www.Jameco.com](http://www.Jameco.com)**

**Power Strip Outlet Saver**

199777EE Every Outlet is Usable

Before Four Outlets Blocked

After

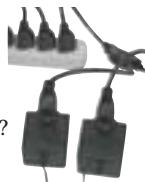
With our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.

- Cord type: SVT
- Cord length: 1'

Part No.	Description	1	10
199777EE	AC power cord (black)	\$1.69	\$1.55
208338EE	AC power cord (beige)	1.69	1.45

**Power Strip Saver Double Outlet**

Get full use of your power strips. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.



Part No.	Description	1	10
208346EE	Power strip saver	\$2.89	\$2.75

**Universal Surge Protector**

Protect your valuable equipment as you eliminate clutter with this easy-to-install surge protector. This unit is a direct replacement for your existing AC wall plate; no wiring is required. Your cable/satellite/antenna connection and two outlets are fully protected against damage from harmful electrical spikes and surges. Two safe-operation lights ensure correct installation and active protection.



Part No.	Description	Price
235002EE	RCA universal surge protector	\$9.95 \$5.95

**Universal Surge Protector for Phone and Fax**

Guard against power spikes and surges as you protect your modem/fax/phone system from harm. No complicated wiring is required; this easy-to-install surge protector is an effortless, plug-in replacement for your existing AC wall plate.



**SALE**

Simply plug in your RJ11 cable for added security

Part No.	Description	Price
234991EE	RCA surge protector, phone/fax	\$9.95 \$5.95

**PCMCIA RS-232 Interface**

PC card/PCMCIA-based serial port card.

- Low cost single port RS-232 interface
- Uses 16550 UART • 5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates
- Configured as COM1, COM2, COM3 or COM4
- PCMCIA type II compliant

**Includes:** 1' cable

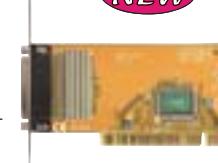
Part No.	Description	Price
164451EE	PCM-COM232 card	\$97.95

**PCI Ultra High-Speed I/O****Serial 16C550 and Parallel Port**

- 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable w/ throughputs up to 921.6kbps
- BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported
- 2 serial DB9M on card and 1 parallel DB25 panel bracket assembly

Part No.	Description	Price
169594EE	2 serial (16C550) and 1 parallel	\$59.95

**NEW**

**PCI Ultra High-Speed Parallel****Single Ultra High-Speed Port**

- Supports ECP and EPP
- 32-byte FIFO
- Transfers data up to 2MB/sec.
- Supports IRQ sharing
- Plug & Play ready
- 1 DB25 female connector
- 32-bit PCI interface
- Size: 4.7" L x 2.2" W
- Weight: 0.5 lbs.

**System requirements:** 486/586 and higher compatibles; Windows® 95/98/NT/2000

**Includes:** Manual and drivers on CD-ROM

Part No.	Description	Price
171926EE	PCI single parallel — <b>NEW</b>	\$39.95

**NEW**

**PCI High-Speed Multi-Port Serial I/O****Eight 16C650 Serial Ports**

- 32-byte FIFO
- Plug & Play compatible
- Standard RS-232 interface
- Transfer rate: up to 921kb/sec.

- Supports RQ sharing
- Size: 6.5" L x 3.6" W
- Weight: 1.8 lbs.

**Includes:** Manual, internal cable with bracket, 2 cables (37-pin male to 4 DB25 male) and drivers on CD-ROM

**System requirements:** 486 and higher compatibles, Windows® 95/98/NT/2000

Part No.	Description	Price
171660EE	8-port PCI serial — <b>NEW</b>	\$179.95

## PCI Single-Port Serial I/O

### Single 16C550 Port

- Plug & Play ready
- Transfer rates up to 921kb/sec.
- 32-bit PCI bus interface
- 32-byte FIFO
- Supports IRQ sharing
- Size: 4.8" L x 1.8" W
- One-year warranty

**System requirements:** 486/Pentium® and higher compatibles; Windows® 95/98/NT/2000

Part No.	Description	Price
171361EE	Single-port serial — NEW	\$38.95




## PCI GPIB IEEE-488.2 Board

### PCI Bus

- 1 MB/s transfer rate
- 1024 word FIFO buffer
- 7 interrupt lines, shared interrupt capability
- IEEE 488.2 standard interface
- Complete talker/listener/controller
- Transparent interrupt enabling/disabling

Part No.	Mfr. Cross Ref. No.	Price
171721EE	PCI-GPIB-1M — NEW	\$398.95




## PCI 32-Bit Sound Card

Have your game and music content come alive using this analog four-speaker output - even if your sound source doesn't support 3D sound! Utilizes the same EMU10K1 audio processor as the Sound Blaster Live, the most powerful audio chip available today. This translates into all-around fantastic sounding audio experience with higher frame rates for your games and more bandwidth for 3D audio. Microsoft Windows® NT 4.0 and Windows® 95/98 operating system compatible.

Part No.	Description	Price
249404EE	PCI 32-bit sound card	\$36.95



## ISA Ethernet Card

*Hard to find for legacy systems.*

- 16-bit ISA
- Complies with IEEE 802.3i 10Base-T and IEEE 802.3 10Mbps CSMA/CD local area network
- Plug and Play
- Full-duplex support
- LED indicator for activity
- RJ-45/AUI/BNC port
- Size: 6.1" L x 4.0" H




Part No.	Product No.	Price
289238EE	3C509B-Combo	\$9.49

## Controlling the World with Your PC

**Hightext Publishing** Make your PC control stepping motors, monitor fluid levels, or switch appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. (257 pages, 1994) **Includes:** 3.5" disk

Part No.	Description	Price
116943EE	Controlling the World	\$44.95

COLOR CODE LEGEND...  
NEW SALE REFURBISHED CLOSEOUT

## Sony Chipset

- 1/4" Sony super HAD CCD sensor
- NTSC system with 510(H) x 492(V)
- Supports these functions: auto electronic shutter (AES), auto iris control (AIC), auto gain control (AGC), auto white balance (AWB), back light compensation (BLC) & flicker less (FL)
- Video drive iris control; high/low switchable auto gain control; on/off backlight compensation
- Internal, negative synchronous system

• Furnished mini lens: 3.6mm

• Signal to noise ratio: >48dB

• 330 TV lines

Requires: 12VDC @ 120mA power supply (recommend P/N 100095EE, pg 95)

Includes: Power/signal cable & mounting hardware

Part No.	Description	Video Output	Minimum Illumination	Price
213436EE	Enclosed color camera	1Vp-p, 75Ω	0.5 lux @ f2.0	\$179.95



## Color CCD Camera

### NEW

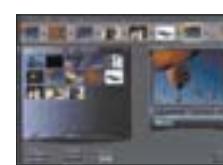
## Pro Video Editing Controller



**SALE**  
Internal illumination lets you work in a darkened room.

Create better videos faster, and have more fun doing it. The ProVideo Editing Controller system combines the most frequently used multimedia controls into a single customizable console that makes your favorite applications work together as one. Assign complicated multi-key sequences to any of the 15 keys, joystick, fader bar or jog wheel, and execute them with one touch. Switch between applications automatically as you work. Comes with VideoWave 4.0 editing software which includes templates for all popular applications, and you can save your own templates for virtually any application. Requires Windows® 98+ or Mac 8.6+. Includes USB cable. (Mac software not included. Download at [www.Jameco.com](http://www.Jameco.com))

Part No.	Description	Price
220329EE	Pro-video editing controller	\$26.95 \$19.99



## Powered Subwoofer System



You'll enjoy crisp highs and booming bass when you add this economical but feature-packed set of magnetically-shielded speakers to your computer system. The satellite speakers deliver big stereo sound in a small package that will complement any desktop. And the compact subwoofer discreetly belts out the bass to make your music and gaming experiences the best they can be. User-friendly features include trouble-free A/C power, convenient on/off and volume controls, and a small, classy footprint for flexible installation.

- Frequency response 110Hz - 18kHz +/- 3dB
- Input impedance: 10KΩ
- Voltage: 110V
- Size speaker: 5.4" H x 2.8" W x 4.6" D
- Size subwoofer: 6.0" H x 4.3" W x 5.4" D
- Weight: 3.14 lbs.

Part No.	Description	Price
233390EE	Powered subwoofer system	\$10.49

Special Purchase

## Any Point™ Home Network

Turn your home phone wiring into an instant network for sharing printers, files, modems, applications, DSL lines, Internet access, and for playing interactive games. Lets computers up to 500 feet apart communicate over existing phone wiring. There's no drilling or cable snaking from room-to-room. And you don't lose a single phone jack or printer port. Includes hardware and software for networking 2 PCs: 2 adapters (Intel 21145 phone line/Ethernet LAN controller), 2 parallel cables, 2 phone cables, 1 CD-ROM. Purchase an additional package for each 1-2 PCs. Requires 486 PCs or higher, Windows® 95/98, 8 MB RAM, 18 MB hard disk space, parallel port for printer use. At least one PC must have CD-ROM drive, modem, and Internet access.



Part No.	Description	Price
220417EE	Any Point™ home network	\$9.95

**Wireless RF Optical Mouse**

Wireless freedom, RF reliability, rechargeable convenience!

Looking for the perfect desktop mouse? Memorex has engineered this 5-button gem to combine the most-requested features into one brilliant product. USB and PS/2 connectivity makes installation a snap. Three of the buttons are programmable to simplify repetitive tasks, and the RF link and optical laser tracking technology ensure precise cursor control within a six-foot range. And when you're not working, the included desktop dock keeps the rechargeable batteries topped-off and ready for your next session!

Part No.	Description	Price
265447EE	Wireless RF optical mouse	\$29.95

**Mini Scroll Mouse**

Your new favorite mouse is Mini!

For no-nonsense reliability in a compact form, you can't beat this plug-and-play performer. Optical technology lets you work on any surface, even without a mousepad. And this mouse is the perfect size to slip into your laptop case. While it may be small, the features are full-size: PS/2 or USB connectivity, finger-tip scroll wheel, and 800dpi resolution deliver top-of-the-line functionality, all at an unbeatable Jameco price.

Part No.	Description	Price
265471EE	Mini mouse	\$17.89

**83-Key Tactile Compact Keyboard**

Part No.	Description	Price
319636EE	83-key tactile compact — NEW	\$40.15

**84-Key Soft Touch Mini Keyboard**

Part No.	Description	Price
311183EE	84-key soft touch mini — NEW	\$46.49

Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

**Wireless RF Keyboard and 3-Button Optical Mouse**

An unprecedented level of desktop freedom.

This stylish Labtech® wireless desktop keyboard combines a wireless multimedia keyboard with a 3-button optical wheel-scroll mouse that provides you with an unprecedented level of desktop freedom. With multimedia keys at your fingertips, you can play CDs, MP3 files, and DVDs. Mute and change volume settings with ease. Refresh the screen, connect to your default email provider, or go on the web with just a push of a button. The optical mouse has an 800dpi advanced optical technology that allows you to work on most surfaces.

**Includes:** Installation guide, 4 AA batteries for mouse and keyboard, CD-ROM drivers.

**System requirements:** IBM or compatible system, available PS/2 port for mouse and keyboard, Windows® 95/98/ME/NT/2000/XP, CD-ROM drive

Part No.	Description	Keyboard Size	Mouse Size	Price
308101EE	Wireless keyboard and mouse	18.1" x 8.7" W x 1.6" H	4.9" L x 2.8" W x 1.5" H	\$37.25

**Clip-on Mouse Pad**

Organize and maximize your workstation.

Tired of trying to work without enough space? Free up your desk space with this convenient clip-on mouse platform. No drilling required – clamps on securely to your desk or workstation without damaging the desk.

This unit also stores completely below your desk so you don't have to see it when not in use. Includes a cord clip to keep mouse cords tangle-free and in position.

Part No.	Description	Price
249105EE	Clip-on mouse pad	\$6.99

**Space-Saver Keyboards**

Full featured AT & PS/2 mini keyboards save valuable desktop space.

**Standard Keyboard**

- Scroll/Num/Caps lock
- PS/2 interface
- Auto repeat
- Built-in button mouse
- Scroll/Caps/Num lock LED indicator
- Size: 12.8" L x 6.2" W x 1.0" H
- Weight: 1.8 lbs.

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Mini Keyboards  
save up to 30%  
desk space!



211756EE

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No.

Description

Price

319636EE 83-key tactile compact — NEW

\$40.15

Part No

## Business Card CD-R Kit



This business card size CD-R kit includes twelve 50MB capacity CD-R disks and sleeves, 16 labels and label design software. You can print your personal or business information and burn company brochures, photos, sales presentations, business reports and so on. A great way to show your resume or promote your business in trade shows and exhibits. Easy to carry and cost-effective.

Part No.	Description	Price
249308EE	Business Card CD-R kit	\$5.99

## Multimedia USB Card Reader

Here's an easy way to upload photos, files, movies, and data from your multimedia flash memory card to your computer! This flash memory card sits right on top of your desk and acts like a removable disk drive, treating your memory card like a diskette. Drag & drop files from the card to your computer & vice versa.

- 1 expansion slot for multimedia card
- USB-A male connector
- Compatible with PCs and Mac

Part No.	Product No.	Price
278125EE	SDDR-1201	\$9.95

## E-Mail Desktop Microphone

Add your voice to e-mail messages, with the touch of a button!

This revolutionary desktop device will change the way you use e-mail! Simply press a button and speak into the omnidirectional condenser mic, and the technology does the rest.

In seconds, your recording is packaged and attached to a ready-to-send e-mail message, seamlessly and hassle-free. Included software facilitates file-management, and an optional add-on will even make an MP3 file from your words!



**NEW**

Part No.	Description	Price
315070EE	E-mail desktop microphone — <b>NEW</b>	\$49.95

## We'll Beat Their Prices by 10%!

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost. Just call us.

COLOR CODE LEGEND...  
**NEW SALE REFURBISHED CLOSEOUT**

## CD Label Kit

**Cool, professional disc labels, made easy!**

Now you can economically label your music CDs, business presentations, DVD compilations and multimedia portfolios like a true professional. Whether you choose standard-size discs, mini-discs or business-card media, this kit will help you design, print and apply the perfect label for your needs. Exact-fit applicator makes precise labeling quick and easy. Order refill kits now, too, in Gloss (LK4) or Matte (LK5) finishes, or choose a versatile kit (LK3) packed with jewel case inserts, disc labels, and multipurpose labels.

Part No.	Product No.	Description	Price
235150EE	LK2	CD/DVD/MINI label kit	\$14.45
235176EE	LK4	CD/DVD labels glossy white	9.35
235168EE	LK3	CD/DVD labels matte white	7.19
235184EE	LK5	Jewel case inserts	9.95

**SALE**



## EZ/CDPrint Printer

Introducing the EZ/CDPRINT, the first printer that delivers a low-cost way to create professionally printed CD-Rs, Credit Card CD-Rs, CD Jewel case liner notes and standard color paper documents.

- Prints a full color CD in about a minute
- Compatible with all inkjet printable CD-R & DVD-Rs
- Both USB and parallel port connections
- Uses standard C60/C62 Epson inkjet cartridges
- Prints paper documents at 12ppm monochrome & 7ppm color
- Printer size: 18.0" W x 8.0" D x 7.0" H
- Special PC and Mac software and templates to print CD, liner notes and more

Requires: Windows® 95/98/2000/ME/XP, Mac OS 8.1 or higher operating systems

Includes: Printer, PC and Mac printer and template software, three printable disks

Part No.	Description	Price
220708EE	CD printer (software, cable, ink cartridges and CD-Rs)	\$279.95 <b>\$244.95</b>

**SALE**



Impress your friends



220708EE



No more messy handwritten CD's



## USB Thumb Drives

What better way to keep your data safe than to keep it close to you? Thumb drives are compact and fit easily in your pocket or hang around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME and above. Windows® 98/98SE drivers available on [www.Jameco.com](http://www.Jameco.com).



217795EE

Part No.	Description	Price
217761EE	32MB	\$24.95
217779EE	64MB	39.95
217787EE	128MB	59.95
217795EE	512MB	159.95

More @ [www.Jameco.com](http://www.Jameco.com)

## Laptop Cases

Now you can have a mobile office! **SALE**

### BackOffice/Laptrap



Protect your mobile computer with the BackOffice and Laptrap cases. Mil spec hardware and edge bound seams complement the shock-absorbing foam to protect your precious hardware and data. When arriving at your destination, simply unfold either case and you're ready to get to work. Gotta run? Just fold and go!



Stylish Vertical Briefcase



Harness for Laptrap

## 2-Port Mini USB Hub



**NEW**

- USB 1.1 compliant
- Bus powered mode indicated by power LED
- Downstream port supports full and low speed operations
- Plug & Play

### System requirements:

IBM compatible Pentium® 233MHz or faster and Mac PC, 64MB of RAM, available USB port, compatible with Windows 98SE/ME/2000/XP/Mac OS 8.6 or higher

Part No.	Description	Price
291856EE	2-port mini hub — <b>NEW</b>	\$23.25

The BackOffice includes a shoulder harness and holds computers up to 14"x11"x2". Highly organized pockets can replace your briefcase, allowing you to carry essential office tools together with your computer!

The Laptrap is a streamlined version with less pocket/storage space. It includes a padded sleeve that protects computers up to 14"x11"x1-3/4", and flaps for lap use. Optional shoulder harness.

Part No.	Description	Price
261411EE	BackOffice laptop case	\$119.95 <b>\$94.95</b>
261518EE	Laptrap laptop case	49.95
261569EE	Optional shoulder harness - laptrap	11.95

Order 24/7 Toll Free 1-800-455-6119

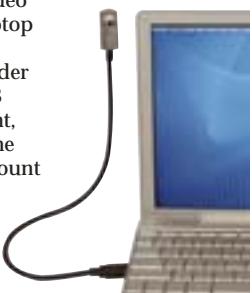
**JAMECO**

**Mobile USB Webcam**

Video conference on the road with this light, flexible camera.

Now you can add video capability to your laptop without the bulk and bother of previous older technology. This USB camera is feather-light, but feature-heavy! The flexible gooseneck mount allows effortless positioning, and its fixed-focus, auto-exposure design means you'll capture great pictures with ease.

Just  
\$19.95



Part No.	Description	Price
262300EE	Mobile USB webcam	\$19.95

**Mobile USB Fan**

*This is so cool, you'll be its greatest fan!*

Take advantage of a great deal on this innovative personal USB-powered fan for laptop computing! You'll enjoy the added comfort of features like a flexible gooseneck mount, soft nylon blades and quiet motor.

Part No.	Description	Price
256461EE	Mobile USB fan	\$8.99

**Mobile USB Light**

*Light up your laptop and work anytime, anywhere!*

Whenever and wherever you need light on your keyboard, this USB-powered, flexible, plug-and-play LED lamp will deliver. Discreetly illuminate your keyboard during presentations in darkened boardrooms, or work on the plane without disturbing others.

Part No.	Description	Price
256436EE	Mobile USB light	\$9.99

**Celebrating 30 years  
of commitment to the  
Best Values from around the world.**

**Wireless Printer Kit**

Simply plug one unit into your computer, the other into your printer and you are ready for wireless printing. No more messy cables!

Print up to  
100' away,  
wirelessly!



**SALE**

Convenience and ease-of-use are what the wireless revolution is all about, and this kit will easily make your current printer conveniently cable-free! Now you can place your printer where you want it, not just where the cable will reach. Easy, plug-and-play USB installation means set-up is trouble-free, too. Works with many Canon, Epson, HP and Lexmark printers; and Windows® XP/2000/ME/98 or Mac OS X v10.2.

*For a list of compatible printers visit our website at [www.Jameco.com](http://www.Jameco.com) and click on data sheet.*

Part No.	Description	Price
2315133EE	Wireless printer kit	\$69.95

**Portable CD-R/RW Drive**

*Just slightly bigger than a CD-ROM!*

Barely bigger than a CD, this self-contained burner packs a super set of features into a compact, portable package. USB 2.0 lets you write your discs at 8x speed and read at 24x speed. Plus, this mobile unit gets all the power it needs from the computer connection and its built-in rechargeable lithium ion battery pack. Includes USB 2.0 cable, wall charger, Nero video/audio/data mastering software, manual and case. Supported operating systems: Win® 98 SE/ME/2000/XP.

Part No.	Description	Price
243061EE	Portable CD-R/RW drive	\$94.95

**Smart AC Inverters**

Smart AC inverters are perfect for cars, RVs and boats. It's as easy as 1-2-3! Simply plug the inverter into your cigarette lighter socket then plug your appliance into the inverter. No need to have those bulky inverters under your seats or dashboards anymore!

- GAC output voltage: 110-115VAC @ 60Hz
- DC input voltage range: 10-15V
- Overload protection, low battery alarm and shutdown

Part No.	Description	Price
307791EE	75-watt smart AC inverter	\$26.95

**Smart Pointer Presenter**

**SALE**

Control your electronic slides from up to 45 feet away!  
Put more power in your points with this presentation sensation.

The best presenters know to "keep it simple," and this pen-sized presentation pal is the essence of simplicity. It provides easy, wireless "forward/backward" control of your PowerPoint slides, and incorporates a laser pointer into its go-anywhere, pen-format design. Bluetooth technology means Plug-and-Play set-up & solid control from up to 45' away!

Part No.	Description	Price
256428EE	Smart pointer presenter	\$59.95

**Digital USB Voice Recorder**

Pocket "secretary" captures all your great ideas.



Once you begin to use this sleek, feature & accessory-packed tapeless recorder, you'll wonder how you ever got along without it. Record up to 396 addressable messages totaling 2 hours (SP) or 4 hours (LP) (model 285499EE) or 9 hours (SP) or 18 hours (LP) (model 237198EE). They can be meetings, phone conversations, and audio from external devices, all in flawless digital clarity. USB connectivity quickly downloads your recordings to your PC.

Included accessories: earphone, external (meeting) microphone, telephone adapter, audio cable, PC software, USB cable, and hand strap.



Part No.	Description	Price
285499EE	Digital USB voice recorder, 2-4 hrs	\$89.95
237198EE	Digital USB voice recorder, 9-18 hrs	129.95

**More Computer Products and Accessories on the web. Log on today at [www.Jameco.com](http://www.Jameco.com)**



*The smallest 150 watt AC inverter we have seen!*

Part No.	Description	Price
307811EE	150-watt smart AC inverter	\$34.95

## 4-Channel Fan Controller

Maintain your PC's cool, with style!

Outfit your desktop PC with this 4-channel fan controller, and you'll be in full control of your computer's cooling power and noise level. Bright multi-color LED ring-lights surround each of the front-panel knobs, adding an amazing flair to your prize machine. Installation is easy: the aluminum controller features a standard "U" type housing, high per-fan capacity (15 to 18 watts!), 3-pin to 4-pin / 4-pin to 3-pin adapters, and plug-in ease of installation (no need to cut wires). Slip one into an empty 5.25" external drive bay, and achieve a whole new level of cool!

Part No.	Description	Price
285579EE	4-channel fan controller	\$15.95

**SALE**


## Clear ATX Computer Case

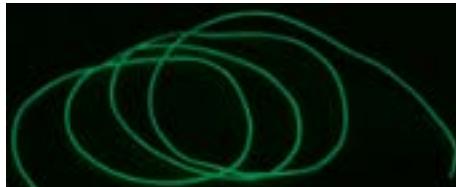
Turn your mild-mannered PC into "SuperMod"!

You'll be the life of the LAN party with this see-through sensation! Why settle for a small side-window, when you can show off every square inch of your PC's interior? Kit assembly is easy (and fun!), and the result is an eye-catching desktop masterpiece in clear acrylic. There's plenty of space for your gear: five exposed 5.25" drive bays, seven 3.5" drive bays (two exposed), and five 80mm fan positions. Add your power supply, ATX motherboard, drives, custom lighting, cabling and fans, and you'll be the proud owner of the most unique and classy PC ever!

Part No.	Description	Price
285448EE	Clear ATX computer case	\$79.95

**SALE**


## Electroluminescence Wires



Four-and-a-half feet of flexible fluorescent fun!

Imagine the possibilities! You can wrap this safe, cool "neon" wire around anything you want to, transforming ordinary objects with high-tech, light-up special effects. Bikes, scooters, musical instruments, models, science-fair displays, presentation boards, anything you want to supercharge with visual pizzazz can now take on a brilliant glow. Available in green, blue and red, and portable-powered by 2 AAs. You'll want all three colors for your creations!

Part No.	Description	Price
263484EE	Electroluminescence wire-blue	\$21.95
263505EE	Electroluminescence wire-green	21.95
263492EE	Electroluminescence wire-red	21.95

## LED Fan Grills

Color coordinate your MOD computer with these color fan grills!

You have a new MOD computer with colored lights, controls, keyboard, mouse and case, but you still have that same old black or metal fan grill. Give life to your existing fans with these new acrylic fan grills with color LEDs.

The LEDs on the multicolored fan grill changes to 7 different colors. Choose from four different colors. Now you can have a complete MOD computer that will be the envy of all. Fits fans with 80mm mounts.

Part No.	Description	Price
285552EE	Green LED fan grill	\$2.69
285544EE	Red LED fan grill	2.69
285561EE	Blue LED fan grill	2.69
285536EE	7 color LED fan grill	3.29


**SALE**

**More Products @ [www.Jameco.com](http://www.Jameco.com) — Log On Today!**

## Removable HD Rack and Insert

- For quick drive swapping
- Power LEDs
- Removable storage for 3.5" IDE drive
- Keylock for security

**Includes:** Inner cable with IDE connector

Part No.	Description	Size (WxDxH)	Weight (lbs.)	1	10
196040EE	IDE rack w/ insert	5.8" x 8.5" x 1.5"	1.2	\$27.95	\$20.95
196031EE	Insert for 196040EE	4.1" x 7.5" x 1.6"	0.8	19.95	16.99



196040EE

COLOR CODE LEGEND...  
**NEW SALE REFURBISHED CLOSEOUT**

## Modding

"Modding" is turning your PC into an electronic work of art. Jameco now has the lighting, windows, LED fans, lighted USB and rounded cables for a modder to truly impress. Get started now and turn your PC into the king of LAN parties or just the coolest PC on the block!

## LED Fan Cases with Grills



Everyone will go hog-wild with our tri-color LED fan!  
Also available in red, blue & green!

**SALE**

*Put some flash in your fan!*

No super-hot computer mod is complete without these high-efficiency, ball bearing quiet and colorful LED case fans. Choose from 4 LED colors: ruby red, bold blue, groovy green, or go hog-wild with a tri-color fan. Installation is screwdriver-easy; just remove your old, boring fans and pop these colorful attention grabbers into place. These fans are the perfect addition for your modding creation.

Part No.	Description	Price
263020EE	LED case fan tri-color with grill	\$6.95
263011EE	LED case fan blue with grill	6.95
262991EE	LED case fan green with grill	6.95
263003EE	LED case fan red with grill	6.95

## USB 2.0 LED Cables

Transform USB connections from beige to beautiful!

Boring cables are a thing of the past with these new 6 feet, colorful USB beauties. Choose your colors (red, white, blue, orange and green) and cable types and replace all your old connections with new, light-enabled technology. USB 2.0-ready and protected by a lifetime warranty, these cables are ready for the future. Color-code your connections today, and get your PC out of the dark ages!

Part No.	Description	Price
262588EE	USB 2 cable orange	\$4.49
262431EE	USB 2 cable white	4.49
262596EE	USB 2 cable white extension	4.49
262457EE	USB 2 cable green	4.49
262609EE	USB 2 cable multi-color	\$6.95 6.99
262570EE	USB 2 cable blue	4.49
262617EE	USB 2 cable blue extension	4.49
262406EE	USB 2 cable red	\$5.95 4.49
262641EE	USB 2 cable red extension	4.49



Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

**USB 2.0 Cables**

USB-A (M) to USB-A (M)  
USB-A (M) to USB-B (M)  
USB-A (M) to USB-A (F)

• Higher transfer rate up to 480Mbps

**USB-A Male to USB-A Male**

Part No.	Description	1	10
229681EE	6' cable beige	\$1.65	\$1.49
222033EE	6' cable black	1.65	1.49
229551EE	6' cable clear	1.65	1.49
229690EE	10' cable beige	1.89	1.75
222041EE	10' cable black	1.89	1.75
229569EE	10' cable clear	1.89	1.75

**USB-A Male to USB-B Male**

Part No.	Description	1	10
229711EE	3' cable beige	\$1.55	\$1.39
222067EE	3' cable black	1.55	1.39
229585EE	3' cable clear	1.55	1.39
229729EE	6' cable beige	1.65	1.49
222009EE	6' cable black	1.65	1.49
229593EE	6' cable clear	1.65	1.49

**USB-A Male to USB-A Female**

Part No.	Description	1	10
229770EE	6' cable beige	\$1.65	\$1.49
222068EE	6' cable black	1.65	1.49
229622EE	6' cable clear	1.65	1.49
229788EE	10' cable beige	1.89	1.75
222076EE	10' cable black	1.89	1.75
229631EE	10' cable clear	1.89	1.75

**Flexible USB Cable and Adapter**

FlexUSB™ is a compact, lightweight accessory that bends, rotates, and flexes to your desired angle. It provides a means to position USB devices, allowing you to use it with any computer, even in the most cramped environment. Its unique ratcheting design makes it possible to position your USB devices that are compatible with both Windows and MAC platforms.

## Part No. Description

262078EE	Flexible USB adapter A M-F	.....	\$10.95
262156EE	Flexible USB cable with A-M to B-M connectors	.....	11.95

**Keyboard Adapters****159089EE/189771EE: AT keyboard adapter**

- Connects PS/2 keyboard to AT
- 6-pin F mini-DIN to 5-pin M DIN

**159097EE/157930EE: PS/2 keyboard adapter**

- Connects AT type keyboards to the PS/2
- 5-pin F DIN to 6-pin M mini-DIN (PS/2)

**316831EE: USB to PS/2 keyboard adapter**

- USB-A F to PS/2 M

Part No.	Length	Housing	1	10
159089EE	1.6" — NEW	Metal	\$2.95	\$2.65
159097EE	1.4" — NEW	Metal	2.95	2.65
189771EE	1.7" — NEW	Plastic	2.95	2.65
157930EE	1.7" — NEW	Plastic/metal	2.65	2.25
316831EE	2.0" — NEW	Plastic	1.79	1.59

**External 7-Port USB Hub**

- 7 USB-A female output ports
- USB-B female root port
- Allows you to attach 127 USB devices to your PC
- LED indicators for port, status, and power
- Plug & Play compatible
- Size: 7.9" L x 2.8" W x 1.1" H

**Includes:** 6VDC power adapter and USB-A male to USB-B female cable

Part No.	Description	Wt. (lbs.)	Price
191450EE	7-Port USB hub	2.6	\$34.19

**4-Port Mini Hub**

*Add USB versatility to your computer with one-step, pocket-sized ease!*

Instantly add more USB 1.1 ports to your desktop or notebook computer with this compact, compatible hub. Perfect for your laptop case, it tucks into any available space to provide plug-and-play versatility, on your desk or on the road. Whether you're a PC power user or a Mac fanatic, this hub will seamlessly expand your hardware horizons.

Part No.	Description	1	5
233365EE	4-Port mini hub	\$8.59	\$7.39



**Same Day Shipping and Always In-Stock**

**USB-A Female Cables & Bracket**

- Supports data transfer rates of 12Mbps
- Connection of two devices
- Dual USB-A female connectors • 8" long



Part No.	Description	1	10
144813EE	USB-A panel mount	\$6.95	\$6.25

**USB Gender Changers**

**NEW**

169375EE	USB-A F to USB-B M	— NEW	\$2.69	\$2.49
316806EE	USB-A F to USB-A F	— NEW	2.69	2.49
316793EE	USB-A M to USB-A M	— NEW	2.69	2.49
316822EE	USB-B F to USB-B F	— NEW	2.69	2.49
316814EE	USB-B M to USB-B M	— NEW	2.69	2.49



175417EE

Part No.	Description	1	10
175417EE	3' cable	\$1.29	\$1.15
169359EE	6' cable	4.95	4.49

**ZipLinq® Retractable USB and Firewire Cables**

226405EE

Don't you hate lugging those heavy, bulky cables around with your laptop? Now, you don't have to. ZipLinq USB and Firewire cables are as light-weight, thin and flexible as a shoelace, and they store themselves tangle-free in a case the size of a quarter. To connect the cable, take a connector in each hand and pull to the length you need, up to 2-1/2". Ready to roll? Tug gently, and the cable zips neatly into its case like a window shade.

Part No.	Description	SALE	Price
226405EE	Firewire M 4-pin to firewire 4-pin	.....	\$6.75
227424EE	Firewire M 6-pin to firewire 4-pin	.....	6.75
227459EE	Firewire M 6-pin to firewire 6-pin	.....	6.75
226384EE	USB A to mini 4-pin	.....	\$9.95
226368EE	USB A to USB B	.....	\$9.95

**USB Cable Extender**

- Extends distance between USB devices by up to 16'
- Complies with USB electrical and timing specifications
- Compatible with high and low speed USB devices
- Interface: USB-A M to USB-A F
- Size: (adapter): 2.8" L x 1.5" W x 0.6" H • Wt.: 1.0 lb.

**Includes:** USB-A M to USB-B F cable

Part No.	Description	Price
191441EE	16' USB extender	\$29.49

## DB9 Extension Cables



- All lines connected straight through 132345EE/196365EE:
- DB9 female to DB9 female cable with thumbscrews 25700EE/148515EE/199638EE:
- DB9 male to DB9 female cable with thumbscrews 181665EE: • DB9 male to DB9 male cable

Part No.	Description	1	10
132345EE	6' F-F.....	\$4.95	\$4.49
199638EE	6' M-F (black) .....	4.49	3.95
25700EE	6' M-F .....	4.95	4.49
196365EE	10' F-F .....	6.95	6.25
148515EE	10' M-F .....	7.49	6.79
181665EE	10' M-M .....	6.95	6.25

## DB25 Extension Cables

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns 174001EE/175290EE: black\*

Part No.	Desc.	Weight (lbs.)	1	10
281551EE	3' M-M	0.4 .....	\$4.45	\$4.25
174001EE	3' M-M*	0.6 .....	4.79	4.35
65787EE	6' M-M	0.5 .....	6.49	5.89
39538EE	10' M-M	0.7 .....	6.95	6.29
179979EE	15' M-M	1.2 .....	6.95	6.29
67070EE	25' M-M	1.4 .....	10.95	9.95
164291EE	3' M-F	0.4 .....	4.29	3.89
175290EE	3' M-F*	0.4 .....	2.95	2.69
163133EE	5' M-F	0.6 .....	5.29	4.75
67256EE	6' M-F	0.6 .....	6.45	5.79
39511EE	10' M-F	0.7 .....	6.95	6.29
101995EE	25' M-F	1.4 .....	11.95	10.79

## IEEE 488 Cables

A variety of cable lengths are offered to ensure that the IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 cables with stackable 24-pin GPIB connectors on both ends.

Part No.	Description	Wt. (lbs.)	1	10
73154EE	1 meter	0.8 .....	\$36.49	\$32.79
115781EE	2 meter	1.2 .....	37.95	34.19
115801EE	4 meter	2.0 .....	38.95	36.19

## Serial Null Modem Cables



- Molded type connectors
- Weight: 0.4 lbs.
- Color: gray
- Length: 10'

180697EE/181403EE Pinouts:  
1 & 6-4, 2-3, 3-2, 4-6 & 1, 5-5, 7-8, 8-7

180582EE Pinouts:  
2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8;  
(serial printer null modem)

Part No.	Description	1	10
181403EE	6' DB9 F to DB9 F.....	\$5.69	\$5.09
180697EE	DB9 F to DB9 F.....	6.79	6.09
180582EE	DB25 M to DB9 F.....	6.69	6.05

COLOR CODE LEGEND...  
**NEW SALE** REFURBISHED CLOSEOUT

## DA15 Extension Cables

- Molded connectors
- Straight through
- Thumbscrews
- Color: gray (237032EE: black)



Part No.	Description	Length	1	10
181286EE	DA15 M-M	6' .....	\$5.49	\$4.95
181358EE	DA15 M-F	6' .....	5.49	4.95
237032EE	DA15 M-F	8' .....	6.99	5.95

## PS/2 Keyboard Extension Cables

- Color: beige
- PS/2 computers
- 6-pin mini DIN female-to-male



Part No.	Description	1	10
28548EE	PS/2 6' non-coiled .....	\$4.35	\$3.89
111053EE	PS/2 10' non-coiled .....	5.49	4.99

## Switch Box Adapter Cables

114913EE:  
• 5' gray 5-pin DIN M-M coiled cable for P/N 114155EE switch box, see web



177261EE:

- 2' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177EE switch box, see website

174772EE: • 6' black 6-pin mini DIN M-M

174908EE: • 6' gray 6-pin mini DIN M-M

112627EE: • 10' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177EE switch box, see website

Part No.	Description	Length	1	10
114913EE	5-pin DIN	5' (gray) .....	\$4.95	\$4.49
177261EE	6-pin mini DIN	2' (gray) .....	2.95	2.55
174772EE	6-pin mini DIN	6' (blk) .....	4.95	4.25
174908EE	6-pin mini DIN	6' (gray) .....	5.75	5.15
112627EE	6-pin mini DIN	10' (beige) .....	7.95	7.25
205655EE	6-pin mini DIN	25' (beige) .....	8.95	7.95

## VGA Monitor Extension Cables



- Extends VGA monitor cable; HDB15 male-to-female
- IBM PC/XT and higher compatibles

134041EE:

- HDB15 female with hex nuts and HDB15 male with thumbscrews

66165EE/148531EE: • Thumbscrews on each end

Part No.	Description	1	10
134041EE	6' screws/hex nuts .....	\$4.49	\$3.95
66165EE	6' thumbscrews .....	6.59	5.95
148531EE	10' thumbscrews .....	7.49	6.79

## VGA Monitor Cables

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDB15 male to male

Part No.	Description	1	10
66173EE	6' monitor cable .....	\$6.49	\$5.89
148523EE	10' monitor cable .....	6.95	6.25

## RJ11 Retractable Cable

No More Tangled Cables on the Road!



No matter how carefully you stow your laptop's cables, don't they always seem to end up in a tangled mess, and isn't that skinny RJ11 phone/modem wire the worst? Here's the answer. This RJ11 cable extends up to 8'. And when you pack up, give it a tug and it retracts into its lightweight, rugged case like a window shade. It's completely tangleproof.

Part No.	Description	Price
233349EE	RJ11 retractable cable .....	\$4.95 \$2.95

## Slim-Line D-Sub Gender Changers



### Save Space!

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

Part No.	Description	1	10
18497EE	D-sub 9-pin male .....	\$4.95	\$4.49
18489EE	D-sub 9-pin female .....	4.95	4.49
119319EE	D-sub 15-pin female HD .....	4.29	3.89
119301EE	D-sub 15-pin male HD .....	4.95	4.49
18446EE	D-sub 25-pin male .....	4.95	4.49
18420EE	D-sub 25-pin female .....	4.95	4.49

## Cat 5e Crossover Cable

- 4-pair
- 8P8C • UTP
- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors

Part No.	Description	1	10
169261EE	10' cable RJ45, gray .....	\$6.95	\$6.25

## Paired DataTwist® Category 5e UTP Cable

TIA/EIA – 568-B.2, unbonded-pair cable

- 4 pair unshielded
- 24 AWG solid
- Maximum DCR per 100m – 9.38Ω
- Input impedance: 100Ω

1585A series:

- Plenum, FEP Teflon® insulation, Flamarrest® jacket • Nominal outer diameter: .200"

1583A series:

- Non-plenum, polyolefin insulation, PVC jacket • Nominal outer diameter: .214"

Part No.	Product No.	Color	Description	Price
234092EE	1585A-100-877	Natural	100' reel ....	\$29.99
234094EE	1585A-500-877	Natural	500' reel ....	129.99
234089EE	1583A-100-06	Blue	100' reel .....	9.99
234176EE	1583A-500-06	Blue	500' reel .....	49.99
234190EE	1583A-1000-06	Blue	1000' reel ....	85.69

**JAMECO®**

Order 24/7 Toll Free 1-800-455-6119

## Parallel Printer-to-PC Switch Boxes

### DB25 Female

- Connects 4 or 6 PCs to one printer

20124EE:



20124EE

### 4-PC switch box

- Size: 6.0" L x 4.0" W x 2.4" H
- Weight: 1.5 lbs.

289211EE:



289211EE

### 6-PC switch box

- Size: 7.6" L x 6.0" W x 2.5" H
- Weight: 2.0 lbs.

Part No.	Description	Price
20124EE	4 PC switch box	\$14.95
289211EE	6 PC switch box	23.15

## AverKey Pro PC to TV Converter Box

- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Size: 6.0" L x 4.0" W x 1.0" H
- Weight: 2.2 lbs. • One-year warranty



NEW

**System requirements:** VGA-based PC, DOS 3.0 or higher, 640kB RAM or larger

**Includes:** Compact PC to video converter box, transformer, cables and manual

Part No.	Description	Price
167193EE	Video signal pro — NEW	\$89.95

## SMA Connectors, Adapters and Couplers



- Cellular phone, data communication, instrumentation and video
- Gold plating (153285EE: nickel plating)
- Frequency range: 0-18GHz
- 50Ω impedance
- Temperature range: -65°C to 165°C

### Connectors

Part No.	Description	1	10
157972EE	SMA 50Ω crimp type M plug connector (RG-58)	\$3.99	\$3.59
153365EE	SMA 50Ω crimp type M plug connector (RG-174)	4.39	3.95
145381EE	SMA straight F PCB mount connector, 4 legs	5.25	4.75
153285EE	SMA bulkhead solder F w/ washer, rear mount (RG-58/174)	3.49	3.15
160021EE	SMA F panel mount connector, 2 mounting holes*	3.99	3.59
160012EE	Panel mount feed thru connector F - F	4.99	4.49
188509EE	SMA PCB straight jack	\$3.69	3.25
188525EE	SMA PCB right angle jack	\$5.95	5.19
			4.20

\*160021EE: Solder cup

### SMA to BNC Adapter

Part No.	Description	Plated	1	10
159476EE	SMA M to BNC F adapter	Nickel	\$2.99	\$2.69

### Coupler

Part No.	Description	Plated	1	10
153293EE	SMA straight coupler F - jack-to-jack	Gold	\$3.85	\$3.39

Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

## 2-Port K/V/M Switch Box

*One simple tool and you have two computers at your command.*

This two port switch box can access TWO computers from one keyboard, mouse, and monitor. No interface card or software to configure.

Operation is as simple as pushing a button on the front panel and entering hot-key commands.

**SALE**



- Supports Microsoft® IntelliMouse, Logitech Net Mouse, etc.
- Supports operating systems DOS, Win 3.x, Win95/98/98SE/2000/ME, WinNT, Netware, Unix, Linux • High VGA resolution
- Keyboard and mouse pluggable at anytime
- Hot-key function allows easy computer access
- Audible sound for switching port confirmation
- Port and console connectors: female PS/2 keyboard and mouse, female HDDB15 for video
- Size: 4.3" L x 3.0" W x 1.2" H
- Recommend gender changer, P/N 119301EE, pg 79, when ordering 216063EE and 204062EE

Part No.	Description	Price
216063EE	2-Port K/V/M	\$47.99
204062EE	PS/2 cable	16.95

## Computer Card Brackets

- For securing cards into bus slots
- Fits standard PC/XT/AT cases
- See pg 32 for DB connectors



Fig.: 1 2 3

Part No.	Description	Fig.	1	10
11754EE	Blank back panel	1	\$1.79	\$1.59
101717EE	For DB9 connector	2	1.79	1.59
101733EE	For DB25 connector	3	1.79	1.59

## ATX Power Supply 15" Extension Cable



- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply code
- 15" L x 18 AWG (wires)

Part No.	Mfr. Cross Ref. No.	1	10
170237EE	ATX-400-RV	\$6.49	\$5.85

## 5.25" Disk Drive Power Splitter



- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females

Part No.	Drive	AWG	Length	1	10
28353EE	5.25"	18	5"	\$2.95	\$2.69

**Great Products at Your Fingertips — Visit [www.Jameco.com](http://www.Jameco.com)**

**The Best Values**  
We search the world to find you the best values!

**The Lowest Prices**  
We guarantee the lowest price in any catalog.

**60% More Products**  
We've added 60% in the last year.

**Immediate Availability**  
Same day shipping on orders placed before 6pm EST.

## BNC/RCA Adapters



Part No.	Description	1	10
118594EE	BNC M to F/F T-adapter	\$2.39	\$2.15
114788EE	RCA F to BNC M adapter	1.35	1.05
114753EE	RCA M to BNC F adapter	1.59	1.45
114770EE	BNC F to "F" conn. M adapter	1.79	1.59



Fig. 1

Fig. 2

Fig. 3

Fig. 4

## BNC Coax Connectors

BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz.

Part No.	Fig.	Description	1	10
71482EE	1	BNC M w/ pin & ferrule (RG58)	\$1.65	\$1.49
112109EE	1	BNC M w/ pin & ferrule (RG174)	1.59	1.45
135618EE	2	BNC M w/ pin & ferrule (RG6)	.89	.69
71271EE	2	BNC M w/ pin & ferrule (RG59/62)	.81	.66
71589EE	2	BNC F panel mount (UG-1094A)	1.49	1.35
111561EE	3	BNC F isolated bulkhead	2.29	1.99
174254EE	4	BNC M to F connector F	1.99	1.59

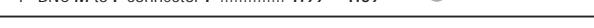


Fig. 1

Fig. 2

Fig. 3

Fig. 4

## SMA 50Ω Coax Cables

Fig. 1: SMA male to SMA male

Fig. 2: SMA male to SMA right angle male

Part No.	Cable	Fig.	Length (ft.)	1	10
159370EE	RG58	1	2	\$4.49	\$3.99
159396EE	RG58	1	6	5.49	4.89
163854EE	RG174	1	1	4.49	3.95
153381EE	RG174	1	2	4.95	4.29
153390EE	RG174	1	4	5.49	4.75
159450EE	RG174	1	4	6.79	6.15
175126EE	RG174	2	0.5	4.49	3.95
175134EE	RG174	2	1	4.95	4.25



Fig. 1



Fig. 2



Fig. 3



Fig. 4

Same Day Shipping  
99% In Stock

## Modular Plugs



P = No. of positions C = No. of contacts  
W/E = Western Electric type number

\* Prepackaged: order in increments of 10 or 100

Part No.	Description	W/E	1	10	100
79290EE	6P4C (RJ11)	623	*	\$.12	\$.11
79273EE	6P6C (RJ11)	623	*	.22	.195
79281EE	8P8C (RJ45) (for stranded wire)	641	.35	.28	.24
119343EE	8P8C (RJ45) unshielded (for solid wire)	—	.49	.44	.35

## Modular Jacks



- PC mount
- Durability: 750 mating cycles
- Voltage rating: 150 volts AC max.
- Contact current rating: 1.5 amp max. @ 25°C

Part No.	Description	W/E	1	10
151765EE	6P4C (RJ11) side flange	AMP	\$.45	\$.43
105945EE	6P4C (RJ11) top flange	623	.62	.56
115836EE	6P6C (RJ11) side flange	—	.74	.67
204177EE	6P6C (RJ11) dual	—	1.49	1.35
124038EE	6P6C (RJ11) 6" leads	—	1.25	1.15
115844EE	8P8C (RJ45)	641	.48	.44

## Modular Jacks

### Punchdown Keystone Type

- Removable jacks used in wall plates (clip in)
- CAT 5e classification
- Punchdown type wiring connections with color coding
- Size: 0.57" W x 0.63" H x 1.23" D
- RJ45: 8P8C
- RJ11: 6P6C



## RJ45

Part No.	Color	1	10
195590EE	Red	\$3.75	\$3.55
195602EE	Yellow	3.75	3.55
195611EE	Green	3.75	3.19
195629EE	Black	3.75	3.55
195637EE	Ivory	3.75	3.19
212951EE	Blue	3.75	3.55
212943EE	White	3.75	3.55

## RJ11

Part No.	Color	1	10
213524EE	Black	\$3.75	\$3.55
213516EE	White	3.75	3.55

## RJ45 Keystone Wall Plates

- Color: ivory
- Size: 2.8" W x 4.5" H

Part No.	No. of ports	1	10
195549EE	1	\$1.25	\$1.15
195557EE	2	1.25	1.15
195565EE	3	1.25	1.05
195573EE	4	1.25	1.05



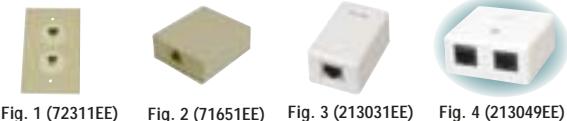
P = No. of positions C = No. of contacts

W/E = Western Electric type number

\* Prepackaged: order in increments of 10 or 100

## Modular Jack Boxes and Wall Plate

Add phone lines and network connections with our modular jack boxes and wall plate. Screw down terminals and color coded wires for easy installation and troubleshooting.



Part No.	Description	Fig.	Dimensions (W x H x D)	1	10
72311EE	6P6C & 8P8C double wall jack plate w/ jacks (beige)	1	2.8" x 4.5"	\$1.95	\$1.75
103464EE	6P4C adhesive jack RJ11 (beige)	2	2.0" x 2.2" x 0.9"	1.39	1.19
71984EE	6P6C adhesive jack RJ11 (beige)	2	2.0" x 2.2" x 0.9"	1.39	1.19
71651EE	8P8C adhesive jack RJ45 (beige)	2	2.0" x 2.2" x 0.9"	1.95	1.65
213031EE	8P8C adhesive jack RJ45(single, white) (CAT 5e)	3	1.5" x 2.4" x 1.1"	3.29	2.99
213049EE	8P8C adhesive jack RJ45(dual, white) (CAT 5e)	4	2.4" x 2.4" x 1.1"	4.15	3.75

## RS-232-to-RJ11/RJ45 Modular Jack Adapters



Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with wiring and hardware.

Part No.	Mfr. Cross Ref.	Description	1	10
66181EE	G9P6	DB9 M-RJ11(6P6C)	\$2.59	\$2.35
66190EE	G9P8	DB9 M-RJ45(8P8C)	2.89	2.65
114737EE	G9S4	DB9 F-RJ11(6P6C)	1.95	1.79
66220EE	G9S6	DB9 F-RJ11(6P6C)	2.79	2.55
66211EE	G9S8	DB9 F-RJ45(8P8C)	2.99	2.69
66229EE	G25P6	DB25 M-RJ11(6P6C)	2.95	2.35
66237EE	G25P8	DB25 M-RJ45(8P8C)	2.99	2.69
204273EE	TMA-105	DB25 F-RJ11(6P6C)	1.95	1.75
66245EE	G25S6	DB25 F-RJ11(6P6C)	2.59	1.95
66253EE	G25S8	DB25 F-RJ45(8P8C)	2.89	2.59

## BNC Coax Cables



### RG58/U 50Ω Cables

• For Ethernet networks, oscilloscopes

Part Number	Mfr. Cross Number	Ref. No.	Lgth (ft.)	1	10
102314EE	CRG58-1		1.5	\$3.99	\$3.49
11404EE	CRG58-3		3	4.29	3.89
102331EE	CRG58-6		6	4.39	3.99
180822EE	CRG58-10		10	4.49	3.99
169818EE	CRG58-15		15	4.95	4.46
102365EE	CRG58-50		50	9.49	8.54

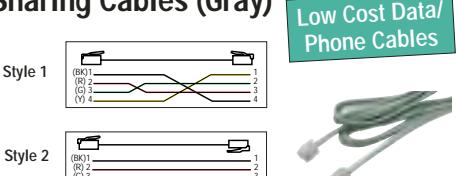
### RG174/U 50Ω Cables

• For Ethernet networks, oscilloscopes

Part Number	Mfr. Cross Number	Ref. No.	Lgth (ft.)	1	10
111472EE	RG174U3		3	\$3.85	\$3.49
111481EE	RG174U6		6	4.59	4.15

## Modular Telephone/Printer Sharing Cables (Gray)

- RJ11 – 6P2C/6P4C for telephone or network
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use
- Style 1 – Reverse wiring for telephone systems
- Style 2 – Straight wiring for networking/printer sharing



Low Cost Data/Phone Cables

Part No.	Conn. Style	Type	Length	1	10
115588EE	1	RJ11-6P6C	7ft.	\$1.55	\$1.35
115617EE	2	RJ11-6P6C	7ft.	2.19	1.99
115676EE	2	RJ45-8P8C	7ft.	1.89	1.75

**Jameco — The #1 Source of Electronic Components for Hobbyists.**

Order 24/7 Toll Free 1-800-455-6119

COLOR CODE LEGEND...  
NEW SALE REFURBISHED CLOSEOUT

**JAMECO**



## Remote Control Extender

Now you can control your stereo system, home theater, virtually ANY components that use IR remotes, from virtually any room in your house!

This matched transmitter/receiver set detects commands from your original remote, converts them to RF and sends them up to 150 feet to give you total control of your system. Think of the possibilities... Surf your CD collection in the basement from your bedroom, change channels on a shared-room video setup, you name it! Installs in minutes, for easy, trouble-free control.



## TV Wall Mounts

A convenient way to save floor space and provide viewing pleasure for all. These TV wall mounts are of durable, quality construction. Cable management system keeps unsightly cables and cords out of sight. Tilts at the base up to 10 degrees and rotates up to 140 degrees in either direction. Includes mounting hardware and safety straps.



285915EE: for small 9" to 13" TV's; holds up to 60 lbs.

285923EE: for medium 19" to 21" TV's; holds up to 75 lbs.

285940EE: for large 25" to 27" TV's; holds up to 125 lbs.

Part No.	Description	Price
307740EE	Remote control extender .....	\$35.95

## Kameleon™ 8 Universal Remote Control

All remotes change channels, but this one changes itself! See only the controls you need for each of 8 separate devices!

The Kameleon 8 revolutionizes remote control as it simplifies your leisure life. Forget the maze of confusing buttons and complicated keystrokes that make some universal remotes a burden. With a touch, this unique controller transforms itself into the perfect remote for each of your components. For example, choose to control your DVD player, and the cool backlit Kameleon 8 display shows only DVD controls. And it offers the same easy, crystal-clear functionality for up to 8 devices.

Pre-programmed with the world's largest code library, this super remote even guides you interactively through its quick and painless set-up routine. Whatever your remote control needs, the Kameleon 8 will be a change for the better.

Part No.	Description	Price
235521EE	Kameleon 8™ universal remote control .....	\$79.95



## FM Dipole Antenna

This dipole antenna is your answer to a clearer, improved FM reception. This economical antenna is constructed of twin 300Ω lead cables and the ends are terminated in plastic tabs for easy mounting to the back of your stereo or to the wall.



Part No.	Description	Price
285827EE	FM dipole antenna .....	\$2.29



## Phaser Universal Remote

Star Trek™ fans rejoice!

Now you can control up to 4 home theater devices with this realistic replica from the original spaced-out series. Distinctive light and sound effects will accompany your IR commands as you zap your way through the universe of video entertainment. Order now, and enter the next generation of remote control!

Part No.	Description	Price
236030EE	Phaser universal remote .....	\$34.95

## Philips® AM/FM Stereo Antenna

Many of the antennas out there are highly directional - so they get in the way when you orient them for best performance. This sleek package houses an omnidirectional, powered FM antenna. It's miniature amplifier boosts weak signals. You'll hear dramatically improved reception on both AM and FM bands, from a stylishly small device that hides on any shelf or can be mounted on any wall. Easily installs into any stereo. Includes one 75Ω to 75Ω and one 75Ω to 300Ω matching transformer.

Part No.	Description	Price
235011EE	Philips® AM/FM stereo antenna .....	\$11.95



Part No.	Description	Price
285801EE	Rabbit ears .....	\$4.49



## The Best Values

We search the world to find you the best values!

## The Lowest Prices

We guarantee it!

## Immediate Availability

Same day shipping on orders placed before 6pm EST.

## HOT LINK Remote Control Booster System

Attaching this HOT LINK PRO to your home theater will give you effortless operation of your equipment without opening the cabinet doors. No complex hookups or special tools required installing this unit. Simply attach the individual emitters located at the end of the cables to the home theater components' eyes and place the main unit anywhere within the cabinet. Drill a small hole on the cabinet doors for the cylindrical eye and you are ready to operate your home theater system without opening the cabinet doors.

- Perfect for hidden home theater components
- Double the distance of your remote controls up to 65 feet for six components
- Can be operated in enclosed cabinets

Part No.	Description	Price
319273EE	Remote control booster — NEW .....	\$99.99



**Advantage Series Outdoor Antennas**

Channel Master created the Advantage Series antennas with ease of use and installation in mind! Superior performance, economical pricing, and pre-assembled for ease of installation make this antenna line the perfect choice for the Do-It-Yourselfer. HDTV digital compatible.



286846EE



286811EE



286838EE



286871EE

**Mounts and Mounting Hardware****NEW**

286037EE: 5ft. x 1-1/4" diameter steel mast, 18GA, powder coat paint

285851EE: 6" heavy duty wall mount; up to 1-1/2" masts; lag bolts included

285878EE: Universal "J" pipe roof/wall mount; 38"

285860EE: Universal saddle TV mass mount; up to 1-1/4" to 1-1/2" masts

285886EE: Heavy duty tripod mount; 3ft. 1-1/4" diameter legs; up to 1-3/4" diameter mast

285991EE: Pitch pad &amp; lag bolt kit for P/N 285886EE; includes 3 pitch pads and 6pcs. 2" x 1/4" lag bolts

295638EE: For 1/2" to 1" Dia. pipe

296809EE: 8AWG grounding wire, 25'

296850EE: Sealant for external connectors

297713EE: Compass for satellite installation

319126EE: DSS k-band LNB (dual feed replacement)

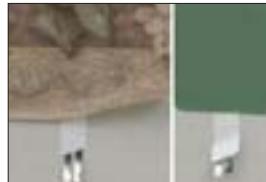
Part No.	Prod. No.	Description	Price	Part No.	Prod. No.	Description	Price
286037EE	1807	5ft. steel mast .....	\$5.99	295638EE	—	Grounding strap .....	\$.79
285851EE	9032	TV mast wall mount .....	9.95	296809EE	—	8AWG grounding wire, 25' .....	2.99
285878EE	3009	Universal roof/wall mount .....	26.55	296850EE	—	Silicon sealant .....	.49
285860EE	9039	Saddle TV mast mount .....	7.99	297713EE	—	Compass for satellite installation .....	.99
285886EE	9003	Tripod mount .....	24.95	319126EE	200-582	DSS k-band LNB (dual feed) .....	47.69
285991EE	9139	Pitch pad and bolt kit*	3.95				

\* For P/N 285886EE

**Around the Clock Ordering** — Call us at 1-800-455-6119 or visit us on the web @ [www.Jameco.com](http://www.Jameco.com)**Flatwire Tape**

Run home improvement and entertainment flatwire cables anywhere, invisibly!

This invisible innovation is a dream come true for do-it-yourselfers and home technology contractors! Just measure the length, peel the self-adhesive backing, and run these super-flat wires along walls, floors, under carpeting or behind molding! On finished walls, just smooth on a little spackle and paint for an amazing wiring installation that's typically only a few hundredths of an inch thick.

**SALE****Specifications With White Backing**

Part No.	Wire	Gauge	Width (in.)	Thick (in.)	Max Curr.	Typical App.	Length (feet)	Price
263353EE		8	16	0.75	0.25	13.0A	High wattage audio & lighting	25 \$34.85 100 126.85
263311EE		2	18	0.75	0.011	10.0A	Speaker, alarm sirens, low voltage lighting	25 23.95 100 86.69
263370EE		4	18	1.25	0.011	10.0A	Indoor or outdoor pairs for two speakers	25 33.59 100 121.95
263361EE		2	75Ω	0.5	0.05	N/A	75Ω video coax for cable TV, video & CCTV	25 31.95 100 115.69
263396EE		8	24	0.75	0.05	3.7A	4 pair UTP for 100 base, TX, Cat5 or phone	25 46.95 100 163.45
263388EE								
263417EE								
263409EE								
263450EE								
263433EE								

**Connectors**

Compatible connectors for all your flatwire needs.

Part No.	Description	1	10
265404EE	2 contact terminal for all flatwire .....	\$ .75	\$ .65
213031EE	RJ45 jack for P/N 263450EE/263433EE .....	3.29	2.99
71984EE	RJ11 jack for P/N 263450EE/263433EE .....	1.39	1.19

**Remote Control Antenna Rotator**

A Channel Master rotator is a mast-mounted, motor-driven device that permits the TV viewer to conveniently rotate the outdoor antenna in any direction to optimize TV reception.



- Compatible with most remote controls incl. satellite
- Rotation: 1 RPM • 69-channel programmable mem.
- Non-volatile mem. holds locations during power failure
- Direct access via TV channel number or digital compass location

Part No.	Prod. No.	Description	Price
286803EE	9521A	Antenna rotator system .....	\$81.95

**75/300Ω Matching Transformers**

75/300Ω impedance matching baluns.

Bandwidth 5-900MHz  
UHF-VHF-FM. Gold  
with protective boot.

Part No.	Prod. No.	Description	Price
285253EE	200-490	Indoor-outdoor balun .....	\$1.99
285211EE	200-505	Indoor balun .....	1.49

**Grounding Blocks**

Used in CATV and satellite subscribe grounding.



Part No.	Prod. No.	Description	Price
285229EE	200-217	F 900 MHz single ground .....	\$1.99
295831EE	—	2.4 MHz dual ground .....	2.05

## 900MHz MATV Splitters

5-900MHz, 75Ω MATV low-cost gold F splitter suitable for consumer MATV applications. DC power passing.



285165EE

Part No.	Prod. No.	Description	Price
285165EE	200-212	2-way	\$3.75
285181EE	200-213	3-way	4.69
285190EE	200-214	4-way	5.69

**Log on today! [www.Jameco.com](http://www.Jameco.com)**



## Satellite IF-VHF/UHF Diplexers



286133EE



286150EE



286918EE

These diplexers are used for separating or combining satellite signals, at 950-1250MHz with VHF/UHF signals at 54-806MHz. They include a high pass filter tuned to 950-2150MHz and low pass filter tuned to 54-806MHz. In addition, a DC power pass is provided from the satellite port to the common in order to pass satellite receiver LNB voltage. The power pass feature passes DC through 22kHz for polarization and satellite selection commands using 13/18V, 22 kHz.

• Impedance: 75 Ω	• Type F female connectors
Part No.	Prod. No.
286133EE	4001IFD
286150EE	4002IFD
286168EE	4022IFD
286918EE	4032IFD
	Separating (1 inp. VHF/UHF; SAT out.)
	Combining (1 out. VHF/UHF; SAT inp.)
	Dual comb. (2 out. VHF/UHF; 2 SAT inp.)
	Dual comb. (2 out.; 1 VHF/UHF inp.; 1 SAT inp.; DC pass)
	Price
	\$9.95
	17.95
	29.95
	23.95



## Dual Satellite Diplexer Amplified VHF/UHF



The complete one box solution to provide satellite and amplified VHF/UHF signals to two locations in a building from twin LNB and off-air antenna! The two high performance diplexers eliminate UHF LNB noise and any off-air pick-up at satellite frequencies. The VHF/UHF preamplifier is a split-band type and includes FM trapping.

• Impedance: 75 Ω	• Type F female connector
• Noise figure: VHF 3.5dB, UHF 2.5dB	• Size: 1.9" H x 2.5" W x 0.8" D
• Inputs: 3 (LNB A, LNB B, VHF/UHF)	• Outputs: 2 (SAT A & B – VHF/UHF)
Part No.	Prod. No.
286117EE	4007IFD
	Dual satellite diplexer
	Price
	\$59.95



## Satellite IF Multiswitches



Channel Master's lowest cost multiswitches supply LNB power from the satellite receivers. Intended for use in systems when 117VAC is not available at the distribution point where it is desired to locate a multiswitch, making these units ideal. Includes a VHF/UHF amplifier. As such, at least one satellite receiver must be connected to pass VHF/UHF signals.

• 75Ω impedance	• Type F female connector	• Insertion loss: 5dB
• Noise figure: 7dB	• Satellite input frequency range (MHz): 950-1250	
• Isolation cross polarization (output to opposite polarity input): 32		
• Maximum input (dBm, per transponder): -23		
• LNB voltage: (nominal 13V, >12V into any output): 11.2		
• Size: 6.4" H x 4.2" W x 1.2" D		

Part No.	Prod. No.	Description	Price
286934EE	6344IFD	Active VHF/UHF	\$79.95

**More @ [www.Jameco.com](http://www.Jameco.com) — Visit us today!**

## In-Line Amplifier

This amplifier will reduce or eliminate the signal losses caused by signal transformers, signal splitters, other in-line devices, or long cables that run between the antenna and receiver system. Amplifies virtually any satellite, TV, or radio signal from 50MHz to 2,200MHz.

- Input capability: 83dB uV min. (7-channel inputs)

Part No.	Description	Price
286053EE	In-line amplifier	\$19.95



## Broadband Amplifiers

• UHF/VHF/FM • Imped.: 75Ω	285237EE
• Low noise, heavy gauge shielded case	
• 117VAC @ 60Hz power source	
• Bandwidth: 54-890MHz	
• Size: 3.5" W x 1.5" H x 2.3" D	

285237EE

285237EE: 6dB 2-output; VHF gain: 6dB; UHF gain: 2dB; flatness response: ±2dB	285245EE
285245EE: 3dB 4-output; VHF gain: 3dB; UHF gain: 0dB; flatness response: ±2dB	

Part No.	Prod. No.	Description	Price
285237EE	200-652	2-output broadband amplifier	\$23.69
285245EE	200-700	4-output broadband amplifier	28.45



## StealthTenna™ Antenna

Optimized for receiving HDTV/Digital and current analog signals, the StealthTenna™ offers the performance and aesthetics consumers demand for their ever-changing reception needs. Antenna assembles easily for do-it-yourself installation. The StealthTenna™ is the perfect complement to DBS satellite systems for receiving local broadcast not offered from satellite. The antenna mounts under eaves with its rear-mounting feature or may be mounted in traditional roof, chimney, wall and attic configurations. For additional signal gain, StealthTenna™ can be equipped with an optional amplifier (listed below) that fits easily inside the antenna housing. The amplifier utilizes separate circuitry for VHF and UHF amplification, providing a gain of 15 dB. Mounts inside antenna housing and has split band amplification.

- Signal gain: 15dB UHF; 15dB VHF/FM
- Power required: 12 to 22VDC

Part No.	Prod. No.	Description	Price
285843EE	3010	StealthTenna™	\$68.95
285982EE	3038	Optional amp.	48.95

## Decorator Style Wallplates



Single gang decorator-style flush plates mounted in standard electrical boxes. High-impact ABS plastic mounting bracket supplied with matching color screws.

## RJ-11 jack and gold F-type coupler

## • 6 micro gold plated contacts

Part No.	Prod. No.	Description	1	5
285392EE	300-103WH	White plate	\$3.29	\$3.15
285384EE	300-103IV	Ivory plate	3.29	3.15

## 3-RCA connectors (Yellow-Red-Black) with insulators, gold plated

285413EE	200-260WH	White plate	\$5.99	\$5.49
285405EE	200-260IV	Ivory plate	5.99	5.49

## F-type gold coupler, 75Ω

285350EE	200-253WH	White plate, single	\$3.39	\$2.95
285341EE	200-253IV	Ivory plate, single	3.59	3.39
285376EE	200-255WH	White plate, dual	4.19	3.95
285368EE	200-255IV	Ivory plate, dual	4.19	3.95

## Standard RJ-11 and F-type coupler

285325EE	300-234WH	White plate	\$2.35	\$2.29
285317EE	300-234IV	Ivory plate	2.35	2.29

## Standard F-type coupler, 75Ω

285288EE	200-251WH	White plate, single	\$1.95	\$1.85
285270EE	200-251IV	Ivory plate, single	1.95	1.85
285309EE	200-252WH	White plate, dual	2.89	2.75
285296EE	200-252IV	Ivory plate, dual	2.89	2.75

**75Ω F Connectors**

Figure 1



Figure 2



Figure 3



Figure 4

Part No.	Type	Fig.	Description	1	10
289828EE	RG-59	1	Crimp-on nickel plated	\$.22	\$.20
289908EE	RG-59	1	Crimp-on gold plated	.45	.43
289887EE	RG-6	2	Crimp-on nickel plated	.22	.20
289916EE	RG-6	2	Crimp-on gold plated	.45	.43
289975EE	RG-59	3	Twist-on nickel plated	.79	.69
290001EE	RG-6	3	Twist-on nickel plated	.79	.69
289924EE	RG-6	2	Crimp-on weatherproof seal, brass	.69	.59
<b>314510EE</b>	<b>RG-59 — NEW</b>	<b>2</b>	<b>Crimp-on weatherproof seal</b>	<b>.55</b>	<b>.46</b>
291531EE	RG-59	4	Perma seal	.69	.59
291581EE	RG-6	4	Perma seal	.69	.59

**75Ω "F" Connectors/Adapters/Terminators**

291709EE



295371EE



295435EE



295531EE



295451EE

Part No.	Description	1	10
291709EE	F jack - jack, nickel plate brass/zinc base	\$.65	\$.55
291725EE	F jack - jack, gold plate brass/zinc base	.95	.85
295371EE	F jack - jack, panel mount; nickel plated	.65	.55
295380EE	F right angle, jack - plug; nickel plated	1.59	1.39
295398EE	F jack - push-on plug; nickel plated	.85	.69
295435EE	F jack - push-on plug; gold plated	1.15	.99
295531EE	F jack - 3.5mm mono plug; nickel plated	1.65	1.35
295451EE	F plug terminator	.55	.45

**3-In-1 Crimping Tool****For perma seal connectors only**

- For waterproof type (PERMA SEAL) connectors, see pg 89
- Black oxide frame finish
- Size: 9.1" L
- Ratchet mechanism
- Weight: 1.2 lbs.

Part No.	Description	Price
291611EE	3-In-1 Crimping Tool	\$56.95

**Digital Audio Optical Cables and Adapters**

228654EE



228689EE



230615EE



230607EE

Connect your DVD, CD, Mini Disc, DAT, game console or other digital audio equipment for clear, full and richly detailed sound. These cost effective performance TOSLINK type cables give you the cleanest possible signal, even at extreme volume levels.

- Low-loss core provides low distortion and high signal-to-noise ratio
- Clad reflecting layer prevents phase error and noise, achieving high-fidelity transmission effect
- Corrosion-resistant, precise collar to ensure long lasting quality
- Ultra flexible PVC jacket makes installation, even in hard to reach areas, a snap

**Cables**

Part No.	Description	1	2	5
228654EE	3' TOSLINK-TOSLINK	\$3.79	\$3.35	\$2.85
228689EE	3' TOSLINK-mini plug	9.95	8.95	7.95
228662EE	6' TOSLINK-TOSLINK	4.75	4.29	3.79
228697EE	6' TOSLINK-mini plug	16.65	14.99	13.49
228671EE	12' TOSLINK-TOSLINK	7.29	6.59	5.95
228700EE	12' TOSLINK-mini plug	23.29	20.95	18.85

**Adapters**

230615EE	TOSLINK - mini plug adapter	\$2.79	\$2.59	\$2.49
230607EE	TOSLINK - TOSLINK coupler	1.89	1.79	1.69

**RG Type Bulk Coaxial Cable**

RG58A/U (50Ω): Nominal cap.: 27pF/ft.; center resist.: 10.4Ω/kft. @ 77°F

RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/kft. @ 77°F

- Prepackaged and priced in increments of 100' or 1000'



Part Number	Mfr. Cross Ref. No.	Description	100 ft.	1000 ft.
116898EE	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	\$18.99	\$150.00
112037EE	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	18.99	169.00

**Coaxial Cables****75Ω Broadband Coax CATV Cable RG6/U Type**

18 AWG solid .040" bare copper-covered steel



- DuoBond® II +60% aluminum braid shield
- Gas injected foam polyethylene insulation; black PVC jacket
- Color: black
- Nom. capacitance: 53.1pF/m
- Nom. impedance: 75Ω
- Nom. outer diameter: .270"

Part No.	Product No.	Description	1	5	10
233269EE	9116-100-10	100' reel	\$20.89	\$17.56	\$16.68
233277EE	9116-500-10	500' reel	57.19	50.07	47.57

**Direct Broadcast Satellite RG6 Type Cable**

18 AWG solid .040" bare copper



- DuoBond® II +60% aluminum braid shield
- Gas injected foam polyethylene insulation, PVC jacket
- Color: black
- Nom. capacitance: 16.2pF/m
- Nom. impedance: 75Ω
- Nom. outer diameter: .270"

Part No.	Product No.	Description	1	5	10
234156EE	1829AC-100-10	100' reel	\$14.99	\$13.99	\$12.99
234177EE	1829AC-500-10	500' reel	54.99	52.24	49.63

**75Ω Standard Analog Video Cable RG59/U Type**

23 AWG solid .023" bare copper



- 95% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Color: black
- Nom. capacitance: 67.3pF/m
- Nom. impedance: 75Ω
- Nom. outer diameter: .242"

Part No.	Product No.	Description	1	5	10
232901EE	8241-100-10	100' reel	\$44.39	\$39.90	\$36.60
232910EE	8241-500-10	500' reel	125.19	113.62	103.17

**3-Way Coaxial Switch Box**

- Switches from a single input or output source to 3 outputs or inputs
- 60dB isolation – shielded housing
- 75Ω input-output
- 5-900MHz UHF/VHF/FM

Part No.	Description	1	10
228241EE	Coaxial switch box	\$5.95	\$5.59

**Component Video and Audio Cables**

Component video cables connect the latest video equipment like DVD players equipped with component video output jacks to LCD or plasma televisions, projectors and other component video devices. By using component video cables, you bypass the TV's Y/C separator and color decoder, routing the color (Y Pr Pb) information directly into the TV's matrix decoder.

- Low-loss 75Ω oxygen-free copper center conductors and foam dielectric provide maximum signal transfer bandwidth for improved picture quality and performance
- Corrosion resistant, precise 24k gold-plated connectors ensure long lasting quality
- Fully molded color coded connectors attached to an ultra-flexible PVC jacket provides excellent strain relief, easy installation, and identification
- 100%, .012mm aluminum-polyester foil shielding and spiral-wound copper-braid shielding provides clear, noise-free, vivid picture quality
- Bonded construction design for neat, easy connection of component video and audio

Part No.	Description	1	2	5
228620EE	6' component video RGB cable	\$12.35	\$11.15	\$9.99
228638EE	12' component video RGB cable	23.75	21.39	19.25
228646EE	25' component video RGB cable	33.95	30.59	27.49
229403EE	6' component video RGB and stereo audio cable	17.29	15.59	13.99
229411EE	12' component video RGB and stereo audio cable	33.25	29.95	26.95
229420EE	25' component video RGB and stereo audio cable	47.55	42.79	38.55

**Audio/Video Adapters and Cables**

**RCA Audio Adapters and Y-Cable**

Part No.	Description	1	10
228283EE	RCA F jack to mono 1/4" M plug	\$ .99	\$ .89
228312EE	RCA M plug to 1/4" mono F jack	1.25	1.10
228267EE	RCA F to F jack coupler, gold plated	.95	.79
159441EE	RCA F to F jack coupler	1.15	.99
228259EE	RCA M to M plug adapter	1.59	1.25
228339EE	RCA F jack to 3.5mm mono M plug, gold plated	1.49	1.29
228291EE	RCA F jack to 3.5mm mono M plug, nickel plated	1.25	1.09
215458EE	RCA M plug to 3.5mm mono F jack	.89	.75
196808EE	5" Y-cable 1/8" stereo F jack to (2) RCA M plugs	.75	.30
139037EE	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs	2.25	1.99
228401EE	6' Y-cable (2) RCA M plugs to 3.5mm stereo M plug	1.55	1.39
228371EE	6" Y-cable (2) RCA M plugs to RCA F jack	.99	.89
228355EE	6" Y-cable RCA M plug to (2) RCA F jacks	1.29	1.15
228380EE	6" Y-cable (2) RCA F jacks to 3.5mm stereo plug	1.95	1.76
215466EE	8" Y-cable RCA M plug to (2) RCA M plugs	2.25	2.04

**RCA Cables**

Part No.	Description	1	10
215474EE	3' RCA M plug - F jack (gray)	\$ .89	\$ .79
228443EE	3' stereo RCA (2) M to (2) M plugs, gold plated	1.49	1.39
183311EE	4' RCA M to M plug (black)	.99	.89
206973EE	4' RCA M to M plug (yellow)	.99	.89
183302EE	4' RCA (2) M to (2) M plugs (red/black)	1.75	1.49
106374EE	6' RCA M to M plug	1.19	1.00
228419EE	6' mono RCA M plug to F jack	1.65	1.45
228486EE	6' RCA stereo (2) M plugs to (2) F jacks	1.25	1.15
228451EE	6' RCA stereo (2) M to (2) M plugs, gold plated	1.79	1.69
184882EE	6' RCA (3) M to (3) M plugs, low loss	1.95	1.79
228427EE	10' RCA F jack to M plug	2.35	1.95
29348EE	10' RCA M to M plug (yellow)	1.69	1.55
228460EE	12' RCA stereo (2) M to (2) M plugs, gold plated	2.09	1.89
225980EE	12' RCA (3) M to (3) M plugs, gold plated	4.49	3.89
225998EE	20' RCA (3) M to (3) M plugs, gold plated	7.99	6.79
228435EE	25' mono RCA M to M plug, nickel plated	2.19	2.09
228478EE	25' RCA stereo (2) M to (2) M plugs, gold plated	2.39	2.29

**Celebrating 30 years of commitment to the  
Best Values from around the world.**

[www.Jameco.com](http://www.Jameco.com) — Quality Components for Less.

**The Best Values**  
We search the world to find you the best values!

**The Lowest Prices**  
We guarantee the lowest price in any catalog.

**60% More Products**  
We've added 60% in the last year.

**Immediate Availability**  
Same day shipping on orders placed before 4PM EST

**Over 99% of our products are in stock!** Place your order by 6PM EST for same business day shipment. 1-800-455-6119 [www.Jameco.com](http://www.Jameco.com)

**RCA Plugs**

• High-quality plastic and metal housing RCA plugs

Part No.	Description	1	10
229876EE	Black	\$1.89	\$1.69
229868EE	Red	1.89	1.69
229884EE	White	1.89	1.69
230287EE	Yellow	1.89	1.69

**Plastic screw on cover w/ integral cable protection**

Part No.	Description	1	10
229921EE	Black (5 pk)	\$1.15	\$1.05
229930EE	Red (5 pk)	1.15	1.05
229913EE	White (5 pk)	1.19	1.09
229892EE	Yellow (5 pk)	1.19	1.09

**RCA Jacks**

Fig. 1



Fig. 2



Fig. 3



Fig. 4

**NEW**

Part No.	Fig.	Description	Dimensions	Color	1	10
220581EE	1	PCB mount	.44"W x .56"D x .48"H	White	\$.45	\$.31
220556EE	1	PCB mount	.44"W x .56"D x .48"H	Red	.45	.31
220572EE	1	PCB mount	.44"W x .56"D x .48"H	Black	.45	.31
220564EE	1	PCB mount	.44"W x .56"D x .48"H	Yellow	.45	.31
159484EE	2	Panel mount	.84"W x .38"H	Black	.49	.39
172339EE	2	Panel mount	.84"W x .38"H	Red	.49	.39
319231EE	3	Panel mount, 1x2 grid	2.1"W x .48"D x .78"H	Red/wht	.79	.69
319249EE	3	Panel mount, 1x4 grid	2.9"W x .48"D x .98"H	Red/blk	1.19	.99
319257EE	4	Panel mount, 2x2 grid	2.0"W x .48"D x 1.4"H	Red/wht	1.19	.99
319265EE	4	Panel mount, 2x3 grid	2.3"W x .48"D x 1.4"H	Red/wht	1.29	1.15
319071EE	4	Panel mount, 2x4 grid	3.0"W x .49"D x 1.4"H	Red/blk	1.39	1.19

**3.5mm Female Jacks and Male Plugs**

109495EE



101151EE



165729EE



231167EE

- Threaded screw on housing
- 1mm diameter solder eyelets
- Shield crimp tabs

231159EE/231167EE: With spring strain relief

Part No.	Mfr. Cross Ref.	Description	1	10
109495EE	PJ035PM	Mono female jack 3.5mm hole size	\$.45	\$.40
165729EE	PJ0354	Mono female jack 3.5mm hole size	.69	.59
101151EE	PJ1035	Mono male plug, plastic	\$0.59	.49
147344EE	PJ1035L	Mono male plug, plastic	\$0.59	.49
231159EE	AP-336	Mono male plug, metal	1.25	1.19
231175EE	AP-340	Stereo male plug, plastic	.55	.43
231167EE	AP-343	Stereo male plug, metal	1.79	1.60

**Speaker Terminals****NEW**

318641EE



318650EE

Make a solid connection with these push-release speaker terminals. Designed for use with megacable speaker wires, it provides a solid low-loss connection so that optimum signals get to your speakers. Color-coded red/black connections for positive and negative side of speakers, screw-mount plates for easy installation.

- Requires 1.92" round cut-out for recessed mounting

Part No.	Description	Size	1	10
318641EE	Round Speaker Terminals — NEW	2.95" diameter	\$.65	\$.45
318650EE	Square Speaker Terminals — NEW	2.2"W x 2.2"H	.65	.45

**NEW****Microphone (XLR) Connectors**

Part No.	Product No.	Description	1	10
319011EE	250-710	3-pin male microphone, metal	\$2.35	\$2.17
319003EE	250-720	3-pin female microphone, metal	2.29	2.20
319046EE	250-700	3-pin male microphone, metal, panel mount	3.25	2.79
319038EE	250-705	4-pin female microphone, metal, panel mount	4.15	3.39

**Switchcraft® Pro Audio Jacks and Plugs**

Part No.	Product No.	Description	1	10
281560EE	A3M	3-pin male microphone, metal	\$3.79	\$3.17
277026EE	A3F	3-pin female microphone, metal	4.49	3.99
281640EE	D3F	3-pin female microphone, metal, panel mount	5.89	4.50
281594EE	A4M	4-pin male microphone, metal	4.59	4.08
281586EE	A4F	4-pin female microphone, metal	7.25	5.56
281674EE	D4M	4-pin male microphone, metal, panel mount	5.19	3.96
297422EE	C3F	3-pin female, microphone	7.85	7.04
297431EE	C3M	3-pin male, microphone	5.65	4.28
297449EE	C4F	4-pin female, microphone	12.15	9.11
297457EE	C4M	4-pin male, microphone	7.19	5.48

**Switchcraft® 1/4" Phono Jacks and Male Plugs**

Part No.	Product No.	Description	1	10
281789EE	297	1/4" stereo phone audio plug, metal	\$4.59	\$3.82
281771EE	280	1/4" mono phone audio plug, metal	3.15	2.82
281762EE	267	1/4" stereo phone audio plug, black plastic	4.25	3.22
281754EE	250	1/4" mono phone audio plug, black plastic	2.55	2.39
281746EE	12B	1/4" stereo phone audio jack	1.49	1.39
281738EE	11	1/4" mono phone audio jack	1.39	1.29
296892EE	12A	1/4" mono phono audio jack, metal	1.79	1.43
296905EE	13B	1/4" mono phono audio jack, metal	4.15	3.76
296930EE	42A	1/4" mono phono audio jack, metal	1.75	1.60
296956EE	70	1/4" mono phono audio jack, metal	6.79	5.48
297001EE	121	1/4" mono phono audio jack, metal	7.15	5.87
297043EE	151	1/4" mono phono audio jack, metal	5.99	4.65
297060EE	170	1/4" mono phono audio jack, metal	7.89	5.99
297107EE	226	1/4" mono phono audio jack, RA, metal	3.89	3.70
296913EE	14B	1/4" stereo phono audio jack, metal	4.19	3.81
297051EE	152B	1/4" stereo phono audio jack, metal	5.75	5.11
297158EE	290	1/4" stereo phono audio jack, metal	6.19	4.78
297123EE	236	1/4" stereo phono audio jack, RA, metal	4.89	4.83
297140EE	238	1/4" stereo phono audio jack, RA, metal	5.55	4.19
296972EE	111	1/4" mono phono audio jack, plastic	1.45	1.31
297537EE	N111	1/4" mono phono audio jack, plastic	1.69	1.54
302543EE	240	1/4" mono phono audio jack, black	2.99	2.72
297115EE	228	1/4" mono phono audio jack, RA, plastic	4.25	3.25
296981EE	112B	1/4" stereo phono audio jack, plastic	1.45	1.31
297027EE	131	1/4" stereo phono audio jack, plastic	10.49	7.82
297271EE	515	1/4" jack cover	7.15	5.48

**We'll Beat Their Prices by 10%!**

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost. Just call us!

## Perma Seal RCA/BNC Connectors



292102EE

292205EE

292313EE



Use the color code chart below to replace the "xx" when ordering:

02 – Red	04 – Yellow	05 – Green
09 – White	10 – Black	13 – Blue

e.g. 292102EE – 2921 is the Jameco designation for RCA RG-59 plug and 02 is for color red.

Part No.	Description	1	5
2921xxEE	RCA RG-59 plug	\$1.59	\$1.49
2922xxEE	RCA RG-6 plug	1.59	1.49
2923xxEE	BNC RG-59 plug	1.89	1.79
2924xxEE	BNC RG-6 plug	1.89	1.79

**More @ [www.Jameco.com](http://www.Jameco.com)**

## 3-In-1 Crimping Tool

For perma seal connectors only

- For waterproof type (PERMA SEAL) connectors
- Black oxide frame finish
- Ratchet mechanism
- Size: 9.1" L • Weight: 1.2 lbs.

Part No.	Description	Price
291611EE	3-In-1 Crimping Tool	\$56.95



## Professional Microphone (XLR) Cables and Adapters



305251EE

305285EE

305293EE

Part No.	Description	1	10
305251EE	3-pin F - F gender changer	\$7.49	\$6.99
305200EE	3-pin M - M gender changer	7.49	6.99
305285EE	1/4" jack to 3-pin F XLR adapter	8.95	7.95
305277EE	1/4" jack to 3-pin M XLR adapter	7.95	7.15
305293EE	1/4" jack to 3-pin XLR F cable, 20'	10.39	9.85
307694EE	1/4" jack to 3-pin XLR F cable, 60'	20.95	19.85

## Cable Clips

These nail-in cable clips are designed for use with RG-6 cables.



Part No.	Description	1 Pkg	10 Pkgs
295603EE	Single RG-6 cable clip, white	\$3.39	\$2.79
295591EE	Single RG-6 cable clip, black	3.19	2.65
295611EE	Dual RG-6 cable clip, white	3.65	2.99
295620EE	Dual RG-6 cable clip, black	3.65	2.99

## Belden Speaker Cables

### Electrolytic Tough Pitch (ETP) High Conductivity Copper Speaker Cables

- 2-conductor stranded • ETP high conductivity copper
- Parallel (1) tinned (1) bare • PVC insulation

#### 18 AWG Stranded (16 x 30)

Part No.	Product No.	Description	1	5
232573EE	9708-100-368	100' reel	\$32.59	\$29.48
232581EE	9708-500-368	500' reel	119.85	113.82
<b>14 AWG Stranded (19 x 27)</b>				
232602EE	9717-100-368	100' reel	\$65.49	\$55.09
233429EE	9717-500-368	500' reel	255.69	242.25
<b>12 AWG Stranded (65 x 30)</b>				
232629EE	9718-100-368	100' reel	\$126.35	\$106.13
232637EE	9718-500-368	500' reel	405.25	358.42

## Belden Paired Cables

### Audio, Control, and Instrumentation Cables Non-Plenum

#### 20 AWG stranded (7 x 28) shielded with 22 AWG stranded TC drain wire

- Semi-rigid PVC insulation and overall chrome PVC jacket
- Nominal capacitance: 180pF/m • Color: chrome
- Nominal outer diameter: .300"

Part No.	Product No.	No. of Pairs	Description	1	5	10
234259EE	9402-100-60	2	100' reel	\$59.99	\$56.75	\$53.25
234261EE	9402-U500-60	2	500' unreel box	284.99	272.82	250.61

#### 18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire

- Tinned copper, twisted pair • Nominal capacitance: 79pF/m
- Polyethylene insulation with chrome PVC jacket
- Nominal outer diameter: .222" • Color: chrome

Part No.	Product No.	No. of Pairs	Description	1	5	10
234184EE	8760-100-60	1	100' reel	\$34.49	\$28.93	\$27.48
234186EE	8760-500-60	1	500' reel	117.75	106.82	97.05

## 2-Conductor Stranded Power/Speaker Cable – 24 AWG

- Black wire with white polarity stripe
- Temperature rating: 20°C to 60°C
- Stranded copper wire (7 x 32) • Operating voltage: 300V

Part No.	Cross Ref. No.	Wt. (lbs.)	100 ft.	Part No.	Cross Ref. No.	Wt. (lbs.)	1000 ft.
100280EE	224BK/C	0.8	\$5.59	100298EE	224BK/K	7.8	\$39.95

COLOR CODE LEGEND...

**NEW SALE REFURBISHED CLOSEOUT**



## Multi-Conductor Audio, Control, and Instrumentation Cables, Non-Plenum

#### 22 AWG stranded (7 x 30) shielded caps with 22 AWG stranded TC drain wire

- Polyethylene insulation
- Color: chrome



Part No.	Product No.	Conduc.	Capacitance	Outer Diameter	Description	1	5
234190EE	8761-500-60	2	79pF/m	.175"	500' reel	\$92.59	\$80.22
234189EE	8761-1000-60	2	79pF/m	.175"	1000' reel	173.75	159.25
233234EE	8771-100-60	3	75pF/m	.199"	100' reel	29.99	25.95
233242EE	8771-500-60	3	75pF/m	.199"	500' reel	99.49	94.31
234179EE	8723-100-60	4	115pF/m	.168"	100' reel	21.49	19.54
234181EE	8723-500-60	4	115pF/m	.168"	500' reel	107.99	97.71

#### 22 AWG stranded (7 x 30) unshielded caps

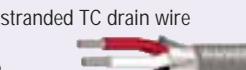
- PVC insulation
- Color: chrome



Part No.	Product No.	Conduc.	Capacitance	Outer Diameter	Description	1	5
232995EE	8442-100-60	2	75pF/m	.199"	100' reel	\$11.99	\$10.99
233007EE	8442-500-60	2	75pF/m	.199"	500' reel	51.59	48.91
233023EE	8443-100-60	3	75pF/m	.199"	100' reel	15.69	14.25
233031EE	8443-500-60	3	75pF/m	.199"	500' reel	72.75	68.91
233058EE	8444-100-60	4	75pF/m	.199"	100' reel	19.99	18.21
233066EE	8444-500-60	4	75pF/m	.199"	500' reel	92.99	88.07
233082EE	8445-100-60	5	75pF/m	.199"	100' reel	25.15	22.76
233091EE	8445-500-60	5	75pF/m	.199"	500' reel	111.99	101.80

#### 18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .246"
- Color: chrome



Part No.	Product No.	Conductors	Description	1	5
233200EE	8770-100-60	3	100' reel	\$59.99	\$54.99
233218EE	8770-500-60	3	500' reel	165.65	150.29

**Celebrating 30 years of commitment to the Best Values from around the world.**

[www.Jameco.com](http://www.Jameco.com) — Quality Components for Less

Order 24/7 Toll Free 1-800-455-6119

**JAMECO**

**2.4GHz Wireless Audio/Video Transmitter**

- Frequency range: 2413MHz to 2470MHz
- Impedance: 50Ω
- Video input: 1Vp-p
- Audio input: 2Vp-p

**Includes:** 12VDC@1A wall adapter, RCA patch cable, antenna and mounting hardware

Part No.	Description	Size (LxWxH)	Price
289852EE	Wireless audio/video transmitter	2.4" x 1.9" x 1.4"	\$199.95

**4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter**

*Make your camera wireless up to 492 feet!*

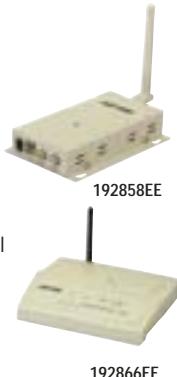
- Transmission range: 492' (150M outdoors); 164' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

**Receiver:**

- Video loss detection & freeze channel
- Non-volatile memory protects system set-up from power loss
- Mute and alarm trigger port
- Size: (transmitter) 4.5" L x 3.2" W x 1.0" H
- Size: (receiver) 6.5" L x 5.5" W x 1.4" H
- Weight: 1.8 lbs.

**Includes:** RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)

Part No.	Description	Price
192858EE	4-channel transmitter	\$94.45
192866EE	4-channel receiver	\$124.95



192866EE

**4-Channel 2.4GHz Wireless Audio/Video Transmitter System**

*CCIR, NTSC, PAL, EIA Format*

- ISM Band: 2.413 – 2.470GHz
- Four selectable channel transmitter and receiver
- Antenna mode: dipole (omnidirectional)
- Impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- Weight: 3.2 lbs.



**Includes:** Two 9VDC @ 300mA with 1.3mm x 3.5mm center positive plug, and two 2.5mm male to RCA patch cables

Part No.	Description	Price
265308EE	4-ch. wireless system	\$149.95

**Camera Mounting Brackets**

- Aluminum construction (white coated)
- Maximum load: 6.5lbs.
- Overall height: 5.1"
- Base diameter: 1.8"
- 360 degree tilt swivel
- 120 degree tilt angle
- Base mounted w/ 3 screws (included)

**NEW**

Part No.	Description	Price
311191EE	15-B009 — NEW	\$6.65

Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)**Mini Wireless Color Camera**

*This mini-wireless camera can be used for professional or home surveillance or... just to have fun!*



*Attach it to a toy boat and ride the waves of a true sailor.*



*Attach to a model train and get the "Engineer's point of view."*

*Create an R/C plane-cam, model train-cam, or even a French poodle-cam!*

Now you can place a color video camera (with sound!) almost anywhere! This super-small (1" x 3/4" x 7/8"), 3 Lux wireless camera and receiver combo delivers sharp, full-motion video images at 380 lines of resolution. With its 150-foot (unobstructed) range, light weight, and 9-volt battery power, you can now add video capability to a world of hobby applications.

Part No.	Description	Price
249025EE	Mini wireless color camera	\$89.95

**Mini Alarm Siren****NEW**

- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned
- Size: 2.8" Dia. x 2.5" L

Part No.	Description	Price
148152EE	Alarm siren — NEW	\$8.95

**Lower Your Cost – Spend More?**

When you're getting ready to install video cameras, be sure to look beyond the price tag of the components. Wireless products might seem extremely costly versus hardwired solutions, but can you afford to hire an electrician or spend the time installing the cable yourself?

Always take a look at the total cost for a project. Many of the "mysteries" have been taken out of wireless products as the technology has evolved. Quality and speed are no longer considered typical concerns. In the end, many times you'll save more by spending a little more up front!

**Practical Practices**  
Money Saving Tips for the Engineer

Same Day Shipping  
99% In Stock

## Black & White Monitor and Camera

Hi-value, low cost 5" monitor system goes anywhere, sees everything, even in low light!

Our convenient low-priced wireless A/V monitoring system easily extends the reach of your eyes and ears to keep watch over your home or business. Just plug it in and you are ready to go. Pick up the lightweight monitor with its convenient handle and use battery power while you keep tabs on your domain anywhere within receiving range. Slide the camera's power switch into the "night" position and the infra-red LEDs allow you to see in very low light. The built-in RCA jacks allow you to run the signals directly into your VCR for true 24/7 security. The set comes complete with one camera and monitor.

### Extra Eyes and Ears

Expand your video security system with up to three of our versatile add-on cameras which come complete with built-in transmitters.



Up to 4 rooms can be observed from a single monitor. Easily switch between cameras with a four-step, 3 to 10 second auto-switching control. The camera's wide field of vision and flexible tilt-and-swivel mount make these black & white cameras a perfect addition to your monitoring set-up. Reliable 2.4 GHz technology transmits clear video and audio to your receiver and monitor.

## 4" TFT LCD Monitor

### NTSC Format

- TFT color LCD
- Resolution: 234 x 383dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position Molex-type power connector
- Tint color and brightness adjustable
- Size: 4.1" L x 3.3" W x 0.7" H (display)
- Size: 4.7" L x 3.3" W x 1.3" H (unit) • Weight: 0.7 lbs.

Part No.	Description	Price
172742EE	4" color LCD monitor	\$159.95



## Color Camera Board

### NTSC Format

- 5.0 lux • FOV: 92°
- 330 TV lines
- 3.6mm lens/F2.0
- 1/3" image sensor
- Low power consumption
- Automatic exposure, gain and white balance • Size: 1.0" L x 0.9" W x 1.1" H

Part No.	Description	Price
171011EE	Camera board	\$77.65



## SONY®

## Black & White Low-Light Camera

### Sony Chipset

- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Composite output with 420 line resolution
- Temp tolerance: -5 to +40°C • Lens: 3.6mm
- Shutter speed: 1/60 - 1/1000 • FOV: 92.6°
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3" L x 1.3" W x 1.0" H • One-year warranty

Part No.	Description	Price
150931EE	Camera board	\$84.45 \$71.79

**SALE**



COLOR CODE LEGEND...

**NEW SALE REFURBISHED CLOSEOUT**

COLOR CODE LEGEND...

**NEW SALE REFURBISHED CLOSEOUT**

### Monitor Receiver Specifications:

- 5" black & white CRT screen with contrast, volume, and brightness controls
- Frequency: 2400-2483 MHz
- Sensitivity: -80 to ~ -85dBm
- Video output: 1Vpp, 75Ω
- Audio output: -8dBs, 47kΩ
- Horizontal resolution: 330 lines
- Automatic camera switching

### Requirements:

12VDC @ 1A power supply (included) or 10 C size batteries (not included)

### Camera Specifications:

- Transmit frequency: 2400-2483 MHz
- Modulation: FM
- Max frequency deviation: 20MHz
- Audio sub carrier frequency: 6.0-6.5 MHz
- Usable range: 50-100 meters
- Infrared detection range: 1-2 meters

Requirements: 12VDC @ 300mA power supply (included)

Part No.	Description	Price
235045EE	5" black & white monitor & camera	\$135.95

## Color Interline Camera

- EIA format
- FOV: 530
- 5 lux sensitivity
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- Video output: 1V p-p; 75Ω
- S/N ratio: 40dB
- 6mm lens/F2.0
- Electronic shutter: 1/60 - 1/1,200 sec.
- Adjustable mounting bracket
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6" L x 0.9" Dia.

Includes: Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

Part No.	Description	Price
185017EE	Color camera	\$99.95



**Water Resistant**

## 5.6" Color TFT Monitor

### NTSC Format

- TFT color LCD display
- 224 x 640 pixel display resolution
- Built-in 1 watt speaker
- Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.1" W x 4.8" H x 1.2" D
- Weight: 2.6 lbs.



Includes: RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

Part No.	Description	Price
201702EE	5.6" TFT color monitor	\$279.95

## Mini Enclosed Color NTSC Camera

- 1/4" CCD sensor
- 350 horizontal TV lines
- Electronic shutter: up to 1/120,000 sec.
- 1 lux/F2.0
- NTSC system with 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Signal to noise ratio: 48dB • Lens: 3.7mm/F2.0
- Video output: 1Vp-p, 75Ω • FOV: 92°
- Size: (enclosure) 1.3" L x 1.1" W x 0.9" D

Requires: 9VDC - 12VDC @ 500mA power supply (recommend P/N 100853EE, pg 38)

Includes: BNC/power cable and mounting hardware

Part No.	Description	Price
215423EE	Mini enclosed camera	\$129.95



**NEW**

## Mini Dome Color Camera

### NTSC Format

- Perfect for ceilings
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- S/N ratio: 46dB
- 15.73kHz horizontal synch. frequency
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0 • Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996EE, pg 38)
- 2 lux/F2.0 • FOV: 92° • Size: 3.5" Dia. x 2.3" H

Includes: Mounting hardware

Part No.	Description	Price
171037EE	Mini-dome camera	\$145.95

## Indoor Metal Camera Enclosure

### Clear window area:

2.2" W x 1.8" H

Maximum camera size:

7.1" L x 6.6" W x 2.4" H

Overall size:

11.7" L x 3.1" W x 2.7" H

Weight: 1.5 lbs.



**NEW**

### Part No. Description

310691EE	Camera Housing	— NEW	\$27.49
----------	----------------	-------	---------

COLOR CODE LEGEND...

**NEW SALE REFURBISHED CLOSEOUT**

COLOR CODE LEGEND...

**NEW SALE REFURBISHED CLOSEOUT**

Order 24/7 Toll Free 1-800-455-6119

**JAMECO®**

## Infrared/Test &amp; Measurement

## Accelerometer Evaluation Boards

## Dual Axis

Crossbow

Evaluation board for the ADXL202, dual axis, 2g accelerometer.

177308EE: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

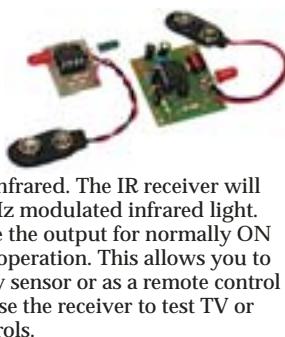


177308EE

Part No.	Product No.	Description	Price
177287EE	ADXL202EB	Dual axis	\$59.95
177308EE	ADXL202EB-232	w/ RS-232	\$159.95

Infrared Transmitter/  
Receiver Kit  26-piece kit

Transmit a 40kHz modulated I-R signal to a distance of 6' to 8'. Can be used as a remote switch to turn objects



OFF and ON by infrared. The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.

- Transmitter size: 1.0" L x 0.8" W
- Receiver size: 1.4" L x 1.2" W

Requires: 6 to 15VDC battery (recommend P/N 151095EE, pg 47)

Part No.	Mfr. Cross Ref. No.	Price
177092EE	IR-2	\$24.95

## LED Tester



With the aid of this test module it is possible to carry out tests with all kinds of light emitting diodes in order to check function, color, brightness, and polarities. The LEDs could be tested optionally with the following currents: 1mA, 2.5mA, 5mA, 10mA, 20mA and 50mA. Two 10mA positions are provided on this multi-tester so that comparisons between two LEDs can be made simultaneously.

- Operating voltage: 9V battery (recommend P/N 198791EE, p.47)
- LED-connection: contact eyes
- LED test currents: 1, 2.5, 5, 10, 20, 50mA
- Dimensions: approx. 2.3" L x 1.7" W x 0.9" H

Part No.	Product No.	Description	Price
313867EE	M087	LED tester	\$8.95

Function Generator  21-piece kit

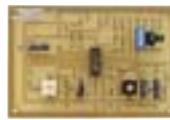
## Sine, Triangle and Square Wave

Great for prototyping electronic circuits. Produces waveforms at frequencies continuously variable from 1Hz to 100kHz.

- Dimensions: 4.1" L x 1.5" W

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626EE, see website)

Part No.	Description	Price
20685EE	JE2206 function generator kit	\$24.95

Infrared Remote-Control  
Receiver Modules

165008EE



176541EE



- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared
- Size: 0.6" L x 0.6" W x 0.5" H
- Single unit module which incorporates a PIN diode & a receiving preamplifier IC
- Excellent mechanical strength and electrical stability
- 940nm wavelength

Part No.	Description	Voltage Input	Price
165008EE	40.0kHz, top view	— NEW 5VDC @ 5mA	\$2.99
176541EE	56.8kHz, side view	— NEW 5VDC @ 2mA	1.69

Water Leak  
Alarm Kit  7-piece kit

Alarms you of water overflows and leaks!

- Water sensor can be placed at a distance by cutting the board and using wires for connection
- Incorporated loud alarm buzzer
- Weight: 0.1 lbs.

Requires: 9VDC battery (P/N 151095EE, pg 47)

Part No.	Product No.	Dimensions	Price
157315EE	MK108	— NEW 2.8" L x 1.8" W	\$10.95



## Clean Air Measuring Device Kit

 8-piece kit

Know your air quality, &amp; you'll breath easier!

Connect this 12-volt device to your project, and you'll instantly add a sensitive, self-contained air-quality indicator. Flammable gases (including natural gas), carbon monoxide, hydrogen, ozone and other contaminants are indicated on the big, highly-readable meter. (Of course, a device of this type won't report specific chemical classifications, only overall air quality.) Easy, accurate, and economical!

- Operating voltage: 12V@150mA
- Relay: 1 x ON, 3A
- Board dimensions: 2.2" L x 1.8" W

Part No.	Product No.	Description	Price
313832EE	B229	— NEW Clean air measuring kit....	\$29.95

More kits available on the web. Log on today @ [www.Jameco.com](http://www.Jameco.com)

## The Best Values

We search the world to find you the best values!

## The Lowest Prices

We guarantee the lowest price in any catalog.

## 60% More Products

We've added 60% in the last year.

## Immediate Availability

Same day shipping on orders placed before 6pm EST.

## Dual Adjustable Regulated Power Supply ■ 48-piece kit

Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from  $\pm 5$  to  $\pm 15$  VDC.

- 120VAC input
- Adjustable positive and negative supplies  $\pm 5$  to  $\pm 15$  VDC, 175mA – 750mA per supply
- LED on indicator • PC board construction
- Dimensions: 5.1" L x 3.5" W x 2.0" H • Wt.: 2.1 lbs.

**Includes:** Components and hardware

Part No.	Description	Price
20626EE	JE215 power supply kit	\$22.95



## 1 Amp Power Supply Kit ■ 12-piece kit

Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators. Chip includes current limiter and thermal overload protection.

- Output current max.: 1.5A
- Max. dissipation: 15W (cooled)
- Max. input voltage: 40V

**Requires:** 25.2VCT @ 2A quick connect power transformer (recommend P/N 102103EE or equivalent, pg 41)

Part No.	Product No.	Dimensions	Price
117621EE	K1823 — NEW	2.1" L x 2.1" W	\$12.95



**NEW**

## DC Motor Speed Control

### ■ 35-piece kit

- Uses pulse width modulation to vary the speed of a DC motor & maintain torque
- For motors up to 100VDC/5A max.
- Dimensions: 3.6" L x 2.3" W x 1.2" H

**Requires:** 5-16VDC supply (recommend P/N 114825EE, see website)

Part No.	Description	Price
127829EE	Motor control kit	\$19.95



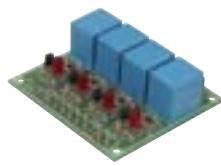
## Relay Card ■ 29-piece kit

Connecting a number of relays to the outputs of an electronic network may seem very simple, but in reality it could create some problems regarding the cabling. This kit provides an attractive and compact alternative. Easy to assemble and can be connected instantly.

- 4 x 3A relay outputs • Size: 3.0" L x 2.7" W

**Requires:** 9VDC @ 300mA power supply (not included)

Part No.	Description	Price
239476EE	K2633 relay card kit	\$24.95
133891EE	9VDC @ 300mA power supply	\$19.99
133891EE	9VDC @ 300mA power supply	3.95



**NEW**

Connecting a number of relays to the outputs of an electronic network may seem very simple, but in reality it could create some problems regarding the cabling.

This kit provides an attractive and compact alternative. Easy to assemble and can be connected instantly.

- 4 x 3A relay outputs • Size: 3.0" L x 2.7" W

**Requires:** 9VDC @ 300mA power supply (not included)

Part No.	Description	Price
239476EE	K2633 relay card kit	\$24.95
133891EE	9VDC @ 300mA power supply	\$19.99
133891EE	9VDC @ 300mA power supply	3.95

## Power and Motor

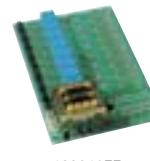
### Universal Relay Card ■ 64-piece kit

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

- Relay output: Max. 5A/220VAC
- Contact volt.: 12VDC/250mA
- TTL or CMOS inputs

**Requires:** 125 or 220VAC power source (recommended P/N 34315EE, pg 11)

Part No.	Description	1	10
128910EE	K6714 Universal relay card kit	\$59.95	\$53.95
144186EE	VR15M121C relay (J2C-22F)	3.79	3.39



128910EE

### Unipolar Stepper Motor Driver ■ 29-piece kit

- Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A
- Onboard 5VDC regulator
- Drives 5, 6 or 8 lead unipolar stepper motors
- Dimensions: 2.6" L x 1.9" W x 1.0" H

Part No.	Description	Price
139109EE	Stepper motor kit	\$29.95



### DC to Pulse Width Modulator ■ 40-piece kit

The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

- PWM range: 0 to 100%
- PWM frequency: 100Hz to 5kHz (adjustable)
- Operating voltage: 8 to 35VDC
- Min. consumption: 35mA
- Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC
- Dimensions: 3.3" L x 1.9" W x 1.8" H
- Weight: 0.5 lbs.

Part No.	Description	Price
120539EE	K8004 modulator kit	\$22.95



Velleman

### DC Voltage Monitor Kit ■ 46-piece kit

#### Kit

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 0.5V, or 0.25V steps. Monitor 8V or 5V in 0.25V steps. Great for boats, motor homes, model planes or race car NiCADCs.

Part No.	Mfr. Cross Ref. No.	Dimensions	Price
181833EE	VM-1 — NEW	2.7" L x 1.3" W	\$8.95



**NEW**

### Same Day Shipping and Always In-Stock

99% of orders placed by 6 PM EST are shipped the same day, and 99% of our items are in-stock!

Order 24/7 Toll Free 1-800-455-6119

## Velleman

### Computer Control Interface Kit ■ 301-piece kit

Connects to printer port without interruption of the printer. Works well in control applications.

- 16 I/Os with opto coupler
- Full opto-isolation with computer
- Analog outputs: eight 6-bit (64 steps), one 8-bit (256 steps)
- Analog inputs: four 8-bit (256 steps)
- 3.5" disk with routines in C++, QBASIC, Turbo Pascal
- Weight: 1.7 lbs.



Requires: DB25 cable (P/N 67256EE, pg 80)

Part No.	Product No.	Dimensions	Price
128928EE	K8000	9.3" L x 5.3" W	\$139.95

**More @ [www.Jameco.com](http://www.Jameco.com) — Log on today!**

## Speech Recognition Kits

### Voice Direct II Stand-Alone Speech Recognition Kit

Bring life to consumer electronics, toys, motors, appliances, lights, and games through the power of VoiceActivation™ from Sensory.

Voice Direct™ II is a speaker-dependent speech recognition module, allowing

training of up to 15 words; capable of being organized into 1 to 3 command sets. Using sophisticated speech recognition technology, Voice Direct™ II maps spoken commands to system control functions via digital I/O ports. Each time one of the words is recognized, output pins on the module are toggled high for 1 second. With Continuous Listening Technology, it means no button press is required for activation. Up to 3 "gateway" words can be programmed, each allowing access to 5 commands. In addition, Sensory's latest Voice Direct™ II technology builds on the original Voice Direct™ by offering even higher accuracy, faster response times, and improved noise immunity.



Part No.	Product No.	Weight	Price
225971EE	66-0101	0.4 lbs.	\$59.95

## Velleman

### Voice Activated LED Kit ■ 33-piece kit

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max.
- Adjustable sensitivity
- Size: 2.5" L x 1.6" W x 1.4" H

Requires: 8-15VDC power supply (P/N 100095EE, pg 95) or 9VDC battery (P/N 151095EE, pg 47)



Part No.	Product No.	Weight	Price
147571EE	MK103	0.1 lbs.	\$9.95

## Audio and Amplifier Kits

For our complete selection of kits log onto our website — [www.Jameco.com](http://www.Jameco.com)

### Super Snooper Big Ear Audio Amplifier Kit 17-piece kit

Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube, to isolate unwanted noise and make a directional microphone.

- Operating voltage: 9VDC (recommend P/N 151095EE, pg 47)

**Includes:** Instructions, outputs for speakers or headsets and schematic

Part No.	Dimensions	Price
151204EE	1.8" L x 1.0" W x 0.6" H	\$10.95



### Sound Generator Kit 61-piece kit

- Produces 10 different sounds w/ adjustable speed: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns
- Push-button keyboard

**Requires:** 8Ω/1 watt speaker; 9V battery (recommend P/N 151095EE, pg 47)

Part No.	Product No.	Dimensions	Price
127562EE	K4401 — NEW	2.8" L x 2.8" W	\$29.95



### Train Sound Generator Kit 11-piece kit

- Produces 4 train sounds by switch selection
- Components supplied for operation on 3VDC (includes battery holder for 2 AA batteries), but circuit will operate from 2.4-6VDC (recommend P/N 151087EE, 2 each, pg 47)
- Dimensions: 1.1" L x 0.6" W x 0.2" H

Part No.	Description	Price
125170EE	4 train noises — NEW	\$9.49



### FM Stereo Transmitter Mini 37-piece kit

Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tunable from 76-108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet.

- Dimensions: 2.7" L x 2.0" W
- Separation 40dB

**Requires:** 9VDC power supply (recommend P/N 151095EE, pg 47)

Part No.	Description	Price
151239EE	FMST-100 stereo kit	\$29.95



Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

Same Day Shipping  
99% In Stock

### Universal Mono Pre-Amplifier 17-piece kit

For audio applications with insufficient input signal

- Output impedance: 1kΩ
- Max. input signal: 40mV
- Frequency range: 20Hz - 20kHz +/-3dB
- Adjustable output level: 40dB max.

**Requires:** 10/30VDC @ 10mA power supply (recommend P/N 20626EE, pg 93)

Part No.	Product No.	Dimensions	Price
117612EE	K1803 — NEW	1.2" L x 1.8" W	\$8.95



### 7-Watt Amplifier Kit 22-piece kit

- Music output power: 7W/4Ω
- RMS output: 3.5W/4Ω & 2W/8Ω
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection

**Requires:** 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803EE, pg 38); speakers

Part No.	Product No.	Dimensions	Price
127255EE	K4001 — NEW	2.2" L x 1.4" W	\$13.95

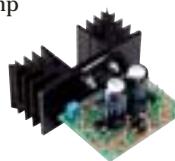


### 30-Watt Stereo Power Amplifier 38-piece kit

General purpose stereo amp for audio applications.

- RMS output: dual 15W @ 4Ω or dual 10W @ 8Ω
- Frequency bandwidth: 7Hz to 60kHz (-3dB)
- Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101864EE, pg 41)
- Dimensions: 2.8" L x 2.0" W

Part No.	Description	Price
129138EE	K4003 Stereo power amp. kit	\$29.95



### FM Transmitter 26-piece kit

Mini FM transmitter (100-108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

- Integrated pre-amplifier (sensitivity 5mV)
- Dimensions: 1.8" L x 2.8" W

**Requires:** 9-12VDC power supply (recommend P/N 20626EE, pg 93)

Part No.	Product No.	Price
117604EE	K1771	\$12.49 \$10.19



### Stereo Tone Control Kit

 26-piece kit

Add precise control to your audio applications!

Tailor your stereo sound, easily and precisely, with this compact, quick-construct kit. Now you can add high quality, independent treble, bass, balance and volume controls to your audio output amplifiers, with a minimum of cost and configuration. Measuring only 115 x 38mm, this unit is the perfect add-on for the following Jameco amp kits: P/N 127255EE (left), 136207EE (see web), 147838EE (see web), and 129138EE (left).



- Operating voltage: 9V - 18V
- High frequency and bass
- Independently adjustable

Part No.	Product No.	Dimensions	Price
313912EE	B110 — NEW	4.5" L x 1.5" W	\$19.95

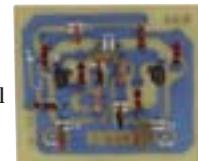


### Antenna Amplifier Kit

 16-piece kit

Boost weak VHF/UHF/Ham signals, easily and economically!

With an output impedance of 60-75Ω, this wideband antenna amplifier can help you pull in those marginal signals, from 30 to 850MHz. This compact amp requires no balancing, and is especially suitable for UHF and VHF television reception, as well as a wide range of signals on the amateur bands. Operates on 9-12 volts, and maximum amplification is 20dB.



- Operating voltage: 9V to 12V
- Input and output impedance: 60Ω
- Frequency range: 30 to 850MHz
- Amplification: 20dB maximum
- Board size: 2.16" x 2.16"

Part No.	Product No.	Dimensions	Price
313921EE	B110 — NEW	4.5" L x 1.5" W	\$12.95



### LED UV Meter Kit 36-piece kit

Built around the U1096B IC, this LED-based analog-style meter puts a bright, readable UV measurement right where you need it. With an operating voltage of 8 to 16 volts and input current of 20mA, this

meter is perfect for a wide range of audio applications. It's even adaptable for non-UV applications, like volt or amp-metering. Switch it on, and you'll immediately see the possibilities in this bright-green, illuminated, adjustable display device!



Part No.	Description	Price
313904EE	LED UV meter kit — NEW	\$24.95

Low-Price Guarantee

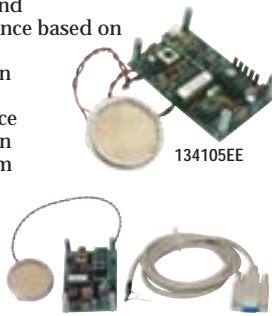
Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

Same Day Shipping  
99% In Stock

## Distance, LED and Light Kits

### Senix Distance Sensor Modules

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between send and receive signals. The distance is represented by an output voltage from 0 to 10VDC (P/N 134105EE) or RS-232 signal (P/N 151482EE).



134105EE

151482EE

- Sensing range: 4" to 60"
- Sensor diameter: 1.8"
- Board size: 2.8" L x 1.8" W x 0.9" H
- One-year warranty

Requires: 15 to 24VDC @ 40mA (not included), (recommend P/N 114825EE, see website)

**134105EE:**

- Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")
- Output voltage: 0-10VDC

**151482EE:** • RS-232 output • Weight: 1.0 lbs.

**Includes:** Disk and computer cable

Part No.	Description	Price
134105EE	Sensor – voltage output	\$159.95
151482EE	Sensor – RS-232 output	\$179.95

### Multifunctional Clock

**▲ 334-piece kit**


319281EE

A multifunctional clock with six 1.42" high digits that indicates time, date and temperature, selectable with toggle option. Includes a countdown function to a specific date with the last day displayed in HH:MM:SS. A chronometer with lap function (1 second resolution), a scoreboard (two players or teams, counts up to 199), a random generator from 00 to 99, 2-digit dice, count and chime beep are other functions that this clock can perform. Relay output for temperature control or time alarm. US and European display option for time, date, degrees Celsius and Fahrenheit formats. All functions and settings are wireless remote controlled (wired remote is possible).

- Fixed 433.92MHz transmitter frequency
- Temperature range: -200C to +700C (10 resolution); 00F to +1500F (20 resolution)
- Memory back-up option: 9V battery or rechargeable battery
- Relay output: 1A/24V max.
- Power Supply: 12VDC@300mA
- PCB size: 10" L x 3.2" W
- Key chain remote control included



319290EE

Part No.	Product No.	Description	Price
319281EE	K8009 — NEW	Multifunction clock kit	\$99.95
319290EE	B8009 — NEW	Optional case	24.95

**NEW**

### IR LED Illuminator 41-piece kit

- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across
- Dimension: 2" diameter


**Ideal for  
CCD Cameras**

Requires: 12-15VDC power supply (recommend P/N 114825EE, see website)

Part No.	Description	Price
157964EE	IR Illuminator kit	\$16.95

### Ultrasonic Motion Detector Kit 49-piece kit

Detect motion/movement 13 - 23 ft. away and trigger an alarm with this kit.

- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 13 to 23 ft. away; 2nd board contains crystal controlled oscillator & all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8" L x 2.0" W x 0.8" H; transducer board: 2.8" L x 0.6" W x 0.9" H



Requires: 9V battery (recommend P/N 151095EE, pg 47)

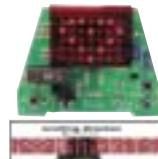
Part No.	Description	Price
125090EE	Ultrasonic alarm kit	\$29.95

### Velleman Scrolling Message Kit

**▲ 76-piece kit**

Create your own scrolling message with this 35-LED graphic display kit.

- Max. 16 characters
- Adjustable scrolling speed
- 35-LED display
- Size: 3.5" L x 2.6" W x 1.8" H



Requires: 9 to 12VDC @ 20mA (recommend P/N 133891EE pg 38)

Part No.	Product No.	Wt. (lbs.)	Price
200310EE	MK124	0.2	\$24.95

### Ion Generator Kit 12-piece kit

*Ionize your environment for fresh, breathable air!*

Right before a thunderstorm, the air feels and smells remarkable. Those are negative ions you're experiencing! With this kit, you can add that great feeling to any room in a few simple steps. Negative ions reduce unpleasant odors, and bond with smoke and dust particles to help remove them from the air. No other health benefits are claimed, but why not see for yourself? This kit operates on 9-12 volts, and draws a meager 80-150mA.



- Operating voltage: 9V to 12V
- Current consumption: approx. 80 to 150mA
- Output voltage: static, approx. 3,000 to 7,000V peak value
- Board dimensions: 2.2" L x 1.7" W

Part No.	Product No.	Description	Price
313841EE	B137 — NEW	Ion generator kit	\$19.95

**NEW**

## Miscellaneous Kits

### Velleman RF Code Lock Receiver

**▲ 75-piece kit**

- Use for car alarms, garage doors, door locks, etc.
- Over 8000 selectable codes
- Use several transmitters with one receiver
- Receivers feature relay output (10A change-over or pulse contact)
- Range: 100 ft.



Requires: 12-16VDC @ 100mA (recommend P/N 100095EE, see website)

Part No.	Description	Price
171235EE	K6727 2-ch receiver (RF) kit	\$39.95

### Universal NiCAD Battery Charger

Automatic battery charger for NiCAD batteries ranging from 1.2 to 15V.



- Charges NiCAD batteries with voltages ranging from 1.2V to 15V
- Automatic charging voltage
- Charging current: adjustable in 7 ranges from 5mA to 600mA
- LED indicator for charging control
- Requires 18V to 20VAC @ 600mA power supply (recommend P/N 121216, see website)
- Board size: 2.2" L x 2.2" W

Part No.	Product No.	Description	Price
314034EE	B079 — NEW	Universal NiCAD charger	\$15.95

### Lead Acid Battery Charger Kit

Charge and maintain both open and sealed type 6V or 12V lead-acid batteries. Can be hooked-up to the unit for an indefinite time, and will be kept in optimal condition. Selectable battery type and charge current, while the charging process is fully automatic. Requires a 18V/25VA transformer (not included; P/N 149956EE see web).

- Charge current: 0.3 or 1 amp (selectable)

Part No.	Product No.	PCB Dimensions	Price
239521EE	K8012	3.8" L x 5.5" W x 1.6" H	\$39.95



### 1 Second - 3 Minute Timer Module

- Output contact rating: 5A @ 200VAC
- Size: 3.0" L x 1.7" W x 1.2" H



Requires: Power supply 12V @ 50mA (recommend P/N 100095EE, see website)

Part No.	Description	Price
147871EE	1 second to 3 minute timer	\$19.95
100095EE	12VDC@200mA power supply	3.95

**Jameco is committed to serving you.**

**Drop us a line at:**

**[AtHome@Jameco.com](http://AtHome@Jameco.com)**

We're always looking for suggestions. Help us better supply more of the products you need.

**PARALLAX BASIC Controllers and Engineering Modules****BASIC Stamps**

BASIC Stamps are small computers using a variation of BASIC to control execution of many applications. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines which can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Store data in the EEPROM before downloading a BASIC program.

Specifications:	127693EE	130892EE
EEPROM	256 bytes	2048 bytes
RAM	16 bytes	32 bytes
Cur. Draw @ 5V	2mA run/20µA	8mA run/100µA
Microcontroller	PIC16C56	PIC16C57
Program speed	2000/sec.	4000/sec.
# of I/O Pins	8	16 + 2 serial
Package	14-pin SIP	24-pin DIP

Part No.	Parallax No.	Price
127693EE	BS1-IC	\$28.95
130892EE	BS2-IC	48.95

**BS2 Educational Starter Kit**

"Getting Started" kit is enhanced to include the What's a Microcontroller? (WAM) curriculum and includes all of the BASIC Stamp hardware required to complete the activities and challenges.



**Includes:** BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

Part No.	Parallax No.	Price
282829EE	27207	\$158.95

**Stamp Works**

Go beyond theory, into a well-written collection of 32 experiments that will teach you first class BASIC Stamp programming. Get the most out of the BASIC Stamp by connecting to active and passive components.



Part No.	Parallax No.	Price
184946EE	27297	\$348.95

**We'll Beat Their Prices by 10%!**

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10% right down to our cost. Just call us.

**50MHz BASIC Stamp 2SX Module**

- Microcontroller: Ubicom SX28AC
- Program execution speed: 10,000 instructions/sec.
- EEPROM program size: 8 x 2k bytes, 4,000 instructions
- Current draw @ 5V: 60mA run/200µA sleep

Part No.	Parallax No.	Description	Size	Price
159775EE	BS2SX-IC 24-pin	BS2-IC with additional RAM & EEPROM	1.2" L x 0.6" W	\$58.95

Low-Price Guarantee

Convenient On-Line Ordering [www.Jameco.com](http://www.Jameco.com)

**Board of Education Full Kit**

The new Board of Education has two major changes. The jumper will select either Vdd (5V) or Vin (unregulated input voltage) to power the servos and the three-position power switch is either off (0), power to everything but servo connectors (1) or power to everything (2).

- Mechanically interlocked power supply to prevent dual connection of wall pack and 9V battery
- DB9 connector for BS2-IC programming and serial communication during run time
- Female 10-pin dual row connector for optional AppMods
- P0 – P15 I/O pins

**Includes:** Board of Education carrier board, BASIC Stamp 2 module, pluggable wires, serial cable, CD-ROM and power supply

Part No.	Parallax No.	Price
283101EE	28102	\$118.95

**BASIC Stamp 2P Modules**

New commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire & Philips I2C parts.



- RAM size: 38 bytes
- Program execution speed: 12,000 instructions/sec.
- Scratch pad RAM: 128 bytes
- Program size: 8 x 2k bytes, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep

184911EE: Number of I/O pins: 16 + 2 serial  
184920EE: Number of I/O pins: 32 + 2 serial

Part No.	Parallax No.	Price
184911EE	BS2P24-IC 24-pin	\$78.95
184920EE	BS2P40-IC 40-pin	87.95

**BS2P Professional Starter Kit**

Provides the engineer with all the parts required to get started with the BS2P microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BS2P.



**Includes:** Manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678kHz crystal, 24LC32 serial EEPROM, DS1822 thermometer, (3) 4.7K resistors, jumper wires

Part No.	Parallax No.	Price
202323EE	27235 kit — NEW	\$207.95
282984EE	45187 BS2P40 demo board — NEW	88.95



- RAM size: 32 bytes
- Volts required: 5-12VDC
- Scratch pad RAM: 64 bytes
- Number of I/O pins: 16 + 2 serial

**Robotics****Robotic Arm Trainer**

▲ 109-piece kit

**Five Axes of Motion**

Test your motor skills as you build and control the arm. This unit can be commanded or instructed through its five-switch wired controller with lights to grab, release, lift, lower, rotate wrist, and pivot sideways.

- Max. length outwards: 14.2"
- Max. height upwards: 20.1"
- Max. lifting capacity: 4.6 oz.
- Shoulder movement @ 120°
- Elbow moving range @ 135°
- Grip opens to 2" wide
- Wrist rotation clockwise or counter clockwise @ 340°
- Rotates left to right at the base @ 350°
- Wt.: 4.5 lbs.

**Requires:** 4 D batteries (not included)

Part No.	Description	Price
157366EE	Robotic arm kit (unassembled)	\$74.95
159345EE	Controller swfwr (DOS 4.2 & Up, WIN 95/98)	84.95

**High-Efficiency Robotic Servo Motor**

- Supply voltage: 4.8-6 volts
- Torque: 49 oz.-in. @ 4.8V
- Speed: 16 seconds to 60°
- Size: 0.8" W x 1.4" D x 1.6" H

Part No.	Mfr. Cross Ref.	Price
157067EE	14500	\$19.95

**8-Pitch Gears and Gear Set**

Includes: 20 pcs., 2 each of the following: T10, T20, T30, T40, T50 and 10 bushings

Part No.	Mfr. Cross Ref. No.	Price
131801EE	GA1	\$7.99

**16-Pitch Sprocket Set and Chain****14-piece sprocket set includes:**

1 each of the following:  
8, 9, 10 teeth at  $\frac{1}{8}$ " bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at  $\frac{1}{4}$ " bore size

Part No.	Mfr. Cross Ref. No.	Price
168276EE	8890	\$29.49

**Giant Robotic Ball-Bearing Servo Motor**

**Perfect for large robotic projects!**

- Power supply voltage: 4.8-6 volts
- Torque: 161 oz.-in.
- Speed: 19 seconds to 60°
- Can be operated by Servo controller P/N 151001EE (see website)

Part No.	Description	Price
166351EE	Giant robotic servo	\$49.95

Same Day Shipping  
99% In Stock

## Robotics (continued)

### Hub and 48-Pitch Gear Set

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

**168284EE:**

12-piece gear set includes: 1 each of the following: 10 teeth at  $\frac{1}{2}$ " bore size; 14 and 16 teeth at  $\frac{1}{8}$ " bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth at  $\frac{1}{4}$ " bore size

Part No.	Description	Price
157104EE	1/4" bore alum. mount hub w/ set screws	\$4.95
168284EE	Gear set - 12 piece	39.95



157104EE

168284EE

### Flex Sensor

- Nominal resistance:  $10\text{k}\Omega$
- Max. resistance:  $30\text{k}\Omega$  to  $40\text{k}\Omega$ , proportional to the degree of flexing or bending
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

Part No.	Description	Price
150551EE	Flex sensor	\$12.95



### MONDO•TRONICS Flexinol Muscle Wire®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. Length: 1 meter.

**141348EE: Muscle Wires® Book & Deluxe Kit**

- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® and Project Book
- 3 meters of wire

**Includes:** Crimps and instructions

*How it works...* Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.

Part No.	Desc.	Linear Wire Dia. (microns)	Typical Resistance (ohm/m)	Deform Current (mA)	Recovery Weight* (grams)	Weight* (grams)	Typical Rate**	Pricing	
								1	10
160055EE	375LT	375	8	2750	393	2000	4	\$19.95	\$17.95

\* Multiply by 0.0098 to get force in Newtons

\*\* Cycles per minute, in still air, at 20° Centigrade

Part No.	Description	Price
141348EE	Muscle Wires® kit — NEW	\$56.95



### Motorized Wooden Kits

**Kits, ideal for your child.**

Your child will love building these kits and watching them walk. These kits come with "kid friendly" pre-punched wooden parts, gearbox, gears, shafts, switch, motor, and battery holder. A marvelous educational science project for ages 8 and up, and a great way to learn about gears and transmissions. These kits require no glue or soldering, just a few simple hand tools, and 2 AA batteries, (not included). Your kids will be building these kits in no time.

- Gear driven transmission
- Requires: knife, screw driver, and long-nose pliers




Part No.	Description	Price
242915EE	Stegosaurus kit	\$16.95 \$11.95
242923EE	Tyrannosaurus kit	\$16.95 \$11.95
249210EE	AA batteries (pack of 4)	2.56

**The Best Values**  
We search the world to find you the best values!

**The Lowest Prices**  
We guarantee the lowest price in any catalog.

**60% More Products**  
We've added 60% in the last year.

**Immediate Availability**  
Same day shipping on orders placed before 8pm EST.

COLOR CODE LEGEND...  


Order 24/7 Toll Free 1-800-455-6119

### Climax Spider Shaft Couplers

**209285EE/106606EE:**

- 1 set screw per hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"



209285EE

**138288EE:**

- 2 set screws (10-32 x 1/8)
- Size: 0.75" L x 0.5" D



138288EE

Part No. Description

Part No.	Description	1	10	100
209285EE	.156" shaft hub	\$ .85	\$ .65	\$ .49
138288EE	.250" sleeve coupler	4.49	4.05	3.65

### Advanced Toddler Robot Kit

Walking robots have mechanical and software interdependencies that require in-depth examples and explanation. The Advanced Robotics text is an introduction to the Toddler robot's basic movements.

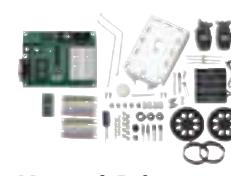
Students using the Toddler robot will learn advanced embedded programming with BASIC, efficient code development, sensor feedback, and general control. Because of the number of possible movements, we consider the Toddler to be appropriate for those aged 14 and above.

**Includes:** 155-page Advanced Robotics text in the Stamps in Class style and the 351-page BASIC Stamp Manual

Part No.	Parallax No.	Weight	Price
282837EE	27311	10.5 lbs.	\$248.95



### Boe-Bot Full Kit




Now with Robotics text v2.0! The new text includes 41 activities for the Boe-Bot and PBASIC 2.5 source code support. The Boe-Bot's flexibility stems from the fact that it's a rolling Board of Education. The Board of Education (and BS2-IC) may be removed to be used as your platform for the other *Stamps in Class* curriculum. The robot may be programmed to follow a line, solve a maze, follow light, or communicate with another robot by following the instruction of the Robotics text. Requires 4AA batteries (not included).

Part No.	Parallax No.	Price
282933EE	28132	\$199.00



### Fiber Optics

#### Fiber Optic Lab Kit

Experiment guide contains nine fiber optic experiments. Kit contains all the fiber optic and electronic components needed to complete the experiments.

- Fiber optic cable transmission
- Characteristics of connectors and splices
- Speed of opto-electronic devices
- Making a light guide
- Fiber termination techniques
- Receiver design




Part No.	Description	Wt. (lbs)	Price
169914EE	Lab course and lab kit — NEW	0.7	\$46.89



### PAYMENT OPTIONS

#### Credit Card/Check Cards

We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

#### Check or Money Order

You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

#### Open Account

It is easy to open an account with Jameco. Contact us for obtaining open account status.

#### C.O.D.

Personal checks are accepted. Please add \$7.00 per C.O.D. order. Include the name and address of your bank and your account number.

#### International Orders

All foreign orders must be prepaid with a credit card (see approved credit cards above), wire transfer, traveler's check, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment.

E-mail: [international@jameco.com](mailto:international@jameco.com).

### SERVICES

#### 30-Day Money Back Guarantee

If for any reason you are not completely satisfied with your purchase, simply return the product, in its original packaging, within 30 days for a refund, credit or exchange. Parts returned due to customer ordering error may be subject to a restock fee. Call our customer service department at 1-800-536-4316 or visit [www.Jameco.com](http://www.Jameco.com) to request an RMA#. It should appear clearly on the outside of the box. Returns without an RMA# will not be accepted, and no freight collect packages will be accepted. A completed Jameco customer service form, located on the back of the packing slip, must be included with your return. We're sorry, but books, kits, software, grab bags and special orders cannot be returned. Special orders consist of products sold at an OEM quantity discount or products not listed in the Jameco catalog.

#### Jameco Warranty

Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from the original purchase date unless otherwise stated in writing by Jameco. If Jameco receives the product considered to be defective within this warranty period and the product is determined to be defective, Jameco will, at its sole option and discretion, either repair or replace the product. The foregoing is your sole and exclusive remedy and states Jameco's entire liability arising out of this warranty. [However, Jameco will transfer to customer whatever transferable warranties and indemnities Jameco receives from the manufacturer of the products. Any claims arising from such manufacturer's warranties shall be the sole responsibility of the manufacturer and not of Jameco.] Moreover, Jameco's limited warranty is void if the damage or defect has resulted from improper customer assembly, failure by customer to follow instruction, product modification, negligent or improper operation, accident, abuse or misapplication. Products returned to Jameco pursuant to this warranty must be returned to Jameco prepaid.

#### No Other Warranties

The limited warranty above is exclusive and in lieu of all other conditions and warranties for the products and documentation. Jameco makes no other conditions or warranties, express, implied, statutory or otherwise, and expressly disclaims all other conditions and warranties, including but not limited to, implied conditions or warranties of merchantability, fitness for a particular purpose, and non-infringement of the products.

#### Limitation of Liability

Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause. Products sold by Jameco are not authorized for use as critical components in life support devices or systems.

### 5 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day!

1-800-455-6119

International orders, call 1-650-592-8097



US/Canada: 1-800-237-6948

Brazil: 000-817-455-6119

Columbia: 980-9-136748

Indonesia: 1-803-015-237-6948

Mexico: 001-800-593-1449

New Zealand: 080-044-0470

Other Countries: 1-650-592-2503

<http://www.Jameco.com>

On-line catalog! Our complete offering of over 11,000 products searchable on the Jameco website!

E-mail your order to:

[sales@jameco.com](mailto:sales@jameco.com) or fill out the order form (following page) and mail it to us.

In-Person: Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will-call office hours are 8:00 a.m. - 5:00 p.m. Monday - Friday.

### CONTACT INFORMATION

The following services are available at 1-650-592-8097 Monday - Friday from 6:30 a.m. - 5:00 p.m. PST or via e-mail:

- International Sales ([international@jameco.com](mailto:international@jameco.com))
- Customer Service ([custservice@jameco.com](mailto:custservice@jameco.com))
- Credit Department ([credit@jameco.com](mailto:credit@jameco.com))
- Technical Support ([tech@jameco.com](mailto:tech@jameco.com))

#### Toll-Free Hotline!

Please call us at 1-800-455-6119.

#### A Nuestros Clientes en

**La Republica Mexicana:** Si usted requiere tratar en Espanol y adquirir nuestros productos facturados L.A.B. Cd. De Mexico (libres de Aduana) y enviados al interior del pais via Estafeta, contacte con nuestro Representante y Distribuidor exclusivo;

**Proyeccion Electronica de Mexico, S.A. de C.V. a:** General E-mail: [info@proyel.com](mailto:info@proyel.com)

Quote E-mail: [jmc@proyel.com](mailto:jmc@proyel.com)

Phone/Fax: 01-(55) 5273-5029

Direccion:

Benjamin Franklin No. 166 Desp. 1  
Col. Escandon Deleg. Miguel Hidalgo  
C.P. 11800 Mexico, D.F.

**Los demas paises de Latinoamerica:** Ya pronto tendremos servicio en su Region. Si usted tiene alguna duda o comentario respecto a los servicios de Jameco, contacte con la empresa arriba mencionada en la Ciudad de Mexico, ellos le pueden ayudar.

### PRICES

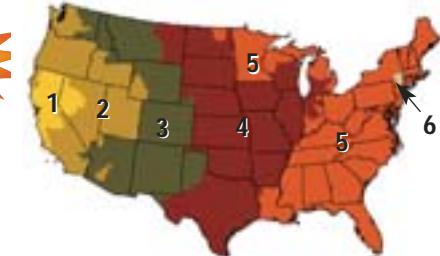
Prices are effective 1-10-05. In the unlikely event you find a lower price in a printed catalog or magazine, simply call us with the details at the time of purchase. We'll beat any price by 10% as long as it's above our cost. Prices and discounts are subject to change without notice. We are not responsible for any typographical errors in this catalog. Photos are representative; product appearance may vary.

### ONLINE INFORMATION

Get answers to frequently asked questions on the Jameco website at:

<http://www.Jameco.com>

### SHIPPING INFORMATION



Guaranteed Delivery Time for UPS Ground (Business Days)

1 day  
4 days

2 days  
5 days

3 days  
6 days

Orders received Mon.-Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth \$5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

#### Options and Rates\*



Shipping delivery times are based on working days.

#### Ground Service

Up to 6 working days for commercial address (up to 9 working days for residential). Guaranteed delivery times may vary depending on zip code. \$6.95 for 1st 2 lbs.; \$0.79 for each additional lb.

#### 2-Day Air Service

\$13.95 for 1st 2 lbs.; \$1.69 for each additional lb.

#### Next Day Air Service

- \$27.95 for AM delivery for 1st 2 lbs.; \$2.49 for each additional lb.
- \$19.95 for afternoon delivery for 1st 2 lbs.; \$2.29 for each additional lb.

#### Priority Mail (USPS)

\$4.95 for 1st lb.; \$1.99 for each additional lb.

Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day.

Jameco reserves the right to rebill shipping surcharges for customer misaddressed packages.

\* The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

#### International Shipping & Handling

Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a \$25 processing fee.

### POLICIES

#### Confirming Orders

Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

#### No Minimum Order

A \$5.00 processing fee will be added to orders under \$20.00.

**See previous page for Ordering Information**
**Fax 1•800•237•6948 Order 24 hours/7 days a week!**
**Jameco, 1355 Shoreway Road, Belmont, CA 94002 Call: 1•800•455•6119 International TEL: 1•650•592•8097 FAX: 1•650•592•2503**
**1 Ordered By:** (We will ship to this address unless you enter #2).

**Customer No.** \_\_\_\_\_ **VIP No.** \_\_\_\_\_  
(see back cover)
**Company** \_\_\_\_\_

**Name of Requisitioner** \_\_\_\_\_ **Title** \_\_\_\_\_

**Name of Purchasing Agent** \_\_\_\_\_ **Title** \_\_\_\_\_

**Street Address/PO Box Number** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip Code** \_\_\_\_\_

**Contact information (please provide all information and check method preferred)**
**(        )** \_\_\_\_\_

**Daytime phone number - Required for Credit Card Orders**
**(        )** \_\_\_\_\_

**Fax Number** \_\_\_\_\_

**E-mail Address** \_\_\_\_\_

 **Please check this box if you would not like to receive special offers via e-mail from Jameco.**
**2 Ship To:** (Only required if different)

**Company** \_\_\_\_\_

**Name** \_\_\_\_\_ **Title** \_\_\_\_\_

**Street Address/PO Box Number** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip Code** \_\_\_\_\_

**3 Method of Payment:**
 **Prepaid (check enclosed)  C.O.D. (\$7.00 service charge)**
 **Net 30 Days (Account must be previously established. Authorized P.O. # required.)**
**PURCHASE ORDER NO.:** \_\_\_\_\_

 **Credit Card**

VISA

MC

AMEX

DISCOVER
**Credit Card users only:** Credit Card Number: 

--	--	--	--	--	--	--	--

**Exp. Date: Month**

--	--

**Year**

--	--	--	--

**Name on card** \_\_\_\_\_

**Billing Address Street/PO Box** \_\_\_\_\_ **City/State/Zip** \_\_\_\_\_

**4**

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	PAGE NO.	WEIGHT (LBS.)	UNIT PRICE	TOTAL
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

**5**
**Please Check Shipping Method Below:**

**FedEx**  
Federal Express

**DHL**

TOTAL WEIGHT	SUB-TOTAL
Add \$5.00 processing fee on orders under \$20	
Please add applicable sales tax (California only)	
Shipping (See item 5)	
C.O.D. (add \$7.00)	
Canada and Mexico certificate of origin (\$25)	
Credit Memo (please attach) <span style="float: right;">-</span>	
<b>TOTAL</b>	

**Priority Mail (USPS)** ..... \$4.95 for 1st lb., \$1.99 for each additional lb.  
 **Ground** ..... \$6.95 for 1st 2 lbs., \$0.79 for each additional lb.  
 **2 Day Air Service** ..... \$13.95 for 1st 2 lbs., \$1.69 for each additional lb.  
 **Next Day Air Service (AM delivery)** ..... \$27.95 for 1st 2 lbs., \$2.49 for each additional lb.  
 **Next Day Air Service (PM delivery)** ..... \$19.95 for 1st 2 lbs., \$2.29 for each additional lb.  
 **Foreign Shipment via Air Parcel Post** ..... Shipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available.

Some restrictions may apply. See order information on previous page for other shipping methods and conditions of sale.  
 Shipping rate is based on a single package shipment.

**6**
**JAMECO** *thanks you for your order!*
**FOR OFFICE USE ONLY**
**#** \_\_\_\_\_ **/** \_\_\_\_\_

## A-B

A/D CONVERTERS	10,11
ACCELEROMETERS	92
ADAPTERS	
Audio/Video	86,87,90
BNC	80
Digital Audio Optical	86
Keyboard	78
Modular Telephone	81
PLCC	50
SMA/SMB	80
Telephone	81
USB	78
Wall Transformers	37,38,51
ZIF	51
ALLIGATOR CLIPS/CONNECTORS	67
ANTENNA	
Accessories	84
Amplifiers	85
FM/Dipole	83
Mounts/Mast	84
Outdoor/HDTV	84,85
Rabbit Ear	83
Rotator	84
ANTI-STATIC EQUIPMENT	52,54,55
APPLE/MACINTOSH PRODUCTS	47,78,80
AUDIO EQUIPMENT	
Amplifiers	82,85,94
Antennas	83
Microphones	75,82
RCA Cables	87
Record Player	82
Sound Cards	73
Speakers	19,73
Transmitters	94
Voice Recorder	76
AUDIO/VIDEO	
Audio Plugs/Jacks	88
Booster	83
Video Accessories	84,85
AUTOMOBILE POWER INVERTERS	76
AUTOMOTIVE	39,68
BANANA PLUGS/JACKS	66,67
BASIC STAMP CONTROLLERS	96,97
BATTERIES & ACCESSORIES	
Alkaline	47,48
Books	46
Charger Regulator	102
Chargers	46,48,49
Cordless Phone	46
Holders & Snaps	48
Lead Acid	48
Lithium	47
NICAD	46,47
NiMH	46-48
Rechargeable	46-48
Zinc Chloride	47
BINDING POSTS	67
BINOCULARS	104
BNC CABLES/CONNECTORS/ADAPTERS	67,80,81
BOOKS	7,46,69,73
BOXES	54,55
BRACKETS	78,80
BREADBOARDS	50,52,54
BUG BOXES AND TRAYS	55
BUZZERS	19

## C

CABINETS/ENCLOSURES	54,72
CABLE CRIMPERS	60
CABLE STRIPPERS	60,61
CABLE TESTERS	66
CABLE TIES & CLAMPS	55,89
CABLE TV	
Grounding Block	84
Splitters	85
Wall Plates	85
CABLE, ASSEMBLIES AND BULK	
Audio	86,87,89
BNC	67,81
Category 5 (UTP) Network	33,78,79
Category 5e	79
Coaxial	33,86
DB Pin Extension	79
Digital Audio Optical	86
Extension	79,80
Floppy Drive	80
IEEE 488/1284/1394 Cable	79
Keyboard	79,80
Management	55
Modem	79
Modular Telephone	81
Monitor	79,80
Multi-Conductor	89
Network	81
Null Modem	79

Paired	89
Patch	87
Power Cords	42,43,72
RCA	87
Retractable (USB/Firewire)	78
Ribbon	33
Serial	79
Shielded	33
SMA/SMB	80
S-VHS	87
Switch Box	79
Telephone	81
USB	77,78
Video, Patch	87
Video, RGB	86
CALIPERS	59
CAMERAS AND ACCESSORIES	
Board	91
CCD	73,91
Enclosed	73,91
Mounts, Mounting Kits, Brackets	90
Siren	90
Surveillance	90,91
Transmitters/Receivers	90
USB	76
Wireless	90
CAPACITORS	
Assortment/Kits/Grab Bags	34,35
Ceramic Disc	20
Dipped Tantalum	21
Electrolytic, Axial	20
Electrolytic, Large Can Aluminum	19
Electrolytic, Radial	20
Kits	34
Memory Back-Up	21
Monolithic, Ceramic	20
Mylar	20
CARD READER	75
CARDS, COMPUTER	
Camera Board	91
Input/Output	72
Interface	72
Network	73
Parallel	72
Prototyping	50,51,54
Serial	72,73
CD-ROM DRIVES & ACCESS.	71,75,76
CD-Rs	75
CHEMICAL CLEANERS & ACCESS.	59
CIRCUIT BOARD MNTG. HDWR.	54
CIRCUIT BOARDS	50,51,54
CLEANERS/DEGREASERS	59
CLIPS	
Battery	48
Test	7
CLOCK CHIPS	9
COMPASS MODULE	92
COMPONENT ASSORTMENTS	
Carbon Film Resistors	22,34
SMD Resistors	22
Springs	49
COMPONENT CABINETS	35,55
COMPUTER	
Accessories	75,76,78
Board/Cards	72,73
Brackets	78,80
Cables, Int./Ext./Network	77-80
Cameras	73,76,91
Card Reader	75
Cases/Enclosures	72,77
CPU Fans	70
CPUs/MPUs	70
Drives	71,75,76
Fan Controller	77
Fans	76,77
Hardware/Brackets/Rails	78
Industrial Products	72,73
Keyboards	74
Kits/Grab Bags	34,35
Lights	76
Memory	71
Mice/Trackballs	74
Modding Accessories	77
Monitor	91
Motherboards	70,71
Power Cords	42,72
Power Supplies	71
Prototype Boards	50,51
Signal Converter	72
Vacuums & Accessories	62
Video RAM	5
CONNECTORS	
Audio/Video	88,89
BNC	80
Coax	80
Paired	89
Patch	87
Power Cords	42,43,72
RCA	87
Retractable (USB/Firewire)	78
Ribbon	33
Serial	79
Shielded	33
SMA/SMB	80
S-VHS	87
Switch Box	79
Telephone	81
USB	77,78
Video, Patch	87
Video, RGB	86
XLR	88,89
DIN	32
D-Sub, Hardware/Hoods/Crimp Housing	32
D-Sub, IDC/Solder Cup	32
D-Sub, PC Mount, Right Angle/Straight	32
F Type	86
Gender Changers	78,79
Header Housings	31
Headers	31
Housings, Square Pin	29
IDC Plug & Socket/Wire	29,31
Modular/Telephone	81
Molex	31
Network	81
Pins, Crimp/Power	29,31
Power	29,31
RCA Jacks/Plugs	87,88
RF	80
Shorting Blocks	31
SMA/SMB	80
Telephone	81
Terminal Blocks	29
FUSES & ACCESSORIES	
Clips	49
Fuses	49
Holders	49
Thermal (NTE)	13
G-H	
GALs	7
GARAGE DOOR OPENER	82
GEARS	96,97
GENDER CHANGERS/ADAPTERS	78,79
GENERATOR, TELEPHONE RINGER	14
GIPB (IEEE-488)	
Cables	79
Cards, PC	73
GRAB BAGS	35
GROUNDING/STATIC CONTROL	54,5
HALL EFFECT SENSORS	26
HARD DISK DRIVES/ACCESS.	71
HARDWARE	
Cable Mounting	55
Computer Brackets	80
Fan Guards	43
Heat Sink Mounting	15
Kit	35
Knobs	23
PCB Mounting	54
Prototype Enclosures	54
Screws, Nuts, Washers	32,49,54
Spacers	35,49,54
HEADERS	31
HEAT GUNS	55
HEAT SHRINK TUBING	55
HEAT SINKS & ACCESSORIES	
486/Pentium Heat Sink & Fan	70
Compound	15
CPU	70
Heat Sink w/ fan	70
Mounting Kits	15
Thermo Pad	13
TO-3, TO-220	15
HOME OFFICE	
Computer Accessories	77
Printers & Accessories	75,76
Voice Recorder	76
HOODS, D-SUB	32
HUBS	75,78
I	
I/O CARDS	72,73
IEEE CABLE/ACCESSORIES	
1394 (Firewire)	78
488 (GIPB)	79
Cards, PC	73
INDUSTRIAL COMPUTING	
INFRARED	
Diodes	16
Kits	92,95
Remote Control Modules	92
Thermometers	68
INPUT DEVICES	
Accessories	76,79
Card Reader	75
Keyboards/Keypads	74
Mice/Pointing Devices	74
INTEGRATED CIRCUITS	
4000-CMOS Logic (DIP/SOIC)	7
5000 Series Processors	6
6500 Series Commodore Processors	6
6800/68000 Series Processors	6
7400-TTL (DIP) Logic	7,35
74AC-CMOS Logic (DIP/SOIC)	7
74ACT-CMOS Logic (DIP/SOIC)	8
74AHC-CMOS Logic (DIP/SOIC)	9
74AHC-CMOS Logic (DIP/SOIC)	9
74ALS-TTL (DIP/SOIC)	9
74C-TTL, CMOS (DIP)	8
74F-TTL (DIP/SOIC)	8
74HC-CMOS Logic (DIP/SOIC)	8
74HCT-CMOS Logic (DIP/SOIC)	8
74LS-TTL (DIP/SOIC)	8,9,35
74S-TTL (DIP)	8
8000 Series Intel-Compatible	6
A/D & D/A Converters	10,11
Atmel MCUs	7
BASIC STAMP/Accessories	7,9,97
Clock Chips & Modules	9
Converters	10,11
CPUs/MPUs	70
Dallas Semiconductors	9
Decoder/Encoder Chips	9
E-Lab Digital Interface	9
EPROMs & EEPROMs	5
Flash Memory	5
GALs	7
IC Assortments	34,35
Interface Series	9
Kits	34
Linear Series	10,11
Maxim-Type Interface	9
Memory, DIMM and SIMM	71
Microcontrollers	6,7
Optoisolators	11
OTB/PROM	5
Pentium/Processor Chips	70
PIC Microcontrollers	6,7
Prototyping Development Tools	59
RAM	5,9
Servo Motor Controller	10
Sockets	13,30,35
Test Clips	7
Voice Chips	5

Voltage Regulators	10
Voltage Regulators, NTE	12
Z80 Series	6
INVERTERS	76
ISOCOM OPTOISOLATORS	11

**J-K**

JACK SCREWS/HEX NUTS	49
JUMPER LEADS	52
KEYBOARDS	74
KEYPADS	24
KITS, COMPONENTS	
Assortment	34
Capacitors	34,35
Diodes	35
Grab Bags	35
Hardware, Mounting	35
IC Kit, 7400 Series	35
IC Kit, 74LS00 Series	34,35
IC Sockets	35
LEDs	35
Linear ICs	34,35
Potentiometers	35
Refills	34
Resistors	22,34,35
SMD Resistors	22
Spring Assortment	49,104
Switches	35
Transistors	35
KITS, ELECTRONICS	
Audio	94
BASIC Stamp Programming	96,97
Clock	95
Compass Module	92
Educational	2,92,94,95,103,104
Environmental	95
Fiber Optics	97
Infrared Transmitters and Receivers	92,95
Lasers	2
Lightbulb	103
Liquid Level, Distance and Light	92,95
Miscellaneous	49
Motor Controller	93
PC Photo Etch	51
PCB Design Kit	51
Power Supply	93
Relay Controller	93
Robotic	96,97
Sound Generation and Detection	94
Speech and Recognition	93
Test & Measurement	92
Timers	95
Velleman	92-95
KNOBS	23

**L-M**

LAMPS AND ACCESSORIES	
Incandescent	15
Magnifier/Desktop	58
Neon	15
Panel Mount	15
LAPTOP PRODUCTS	
Mobile Computing	75,76,78
LASER	2
Kit	102
Diodes	102
Pointer	102
LCD DISPLAYS/MODULES	18,91
LEADS, TEST	67
LED HARDWARE	15
LEDs	
Accessories/Hardware	15,35
Displays	17
High Output	16,17
Infrared	16,95
Kits/Grab Bags	35
Panel Indicators	15
Standard Output	16
LIGHT METER, DIGITAL	68
LOGIC PROBE AND PULSER	63
MACINTOSH PRODUCTS	47,78,80
MAGNIFYING GLASSES/LAMPS	58
MEMORY	
Batteries	47
Capacitors	21
DIMM	71
EDO	71
SIMM	71
METERS	
Benchtop	64
Clamp	64
DMM	62-64,68
Environmental	68
LCR	63
Pocket	62
Temperature/Time	68
MICE AND ACCESS.	74
MICROCONTROLLERS	6,7
MICROPHONE	
Cartridge/Condenser	19
PC Desktop	75
Vocal	82
MICROPROCESSOR CRYSTALS	21
MICROPROCESSORS	6,70,96
MODEMS/FAX	72
MODULAR JACKS & ADAPTERS	81
MODULATORS	82
MONITOR STAND/BRACKETS	83
MONITORS	91

**N-O**

NAME TAG	18
NETWORK PRODUCTS	33,68,73,78,79
NUTS	49
OPTOELECTRONICS	11
OPTOISOLATORS	11
ORDER FORM & INFORMATION	98,99
OSCILLATORS/CRYSTALS	21
OSCILLOSCOPES/ACCESSORIES	64,65,67

**P-R**

PALS	7
PANEL METERS	18,19
PATCH CORDS	67,78,79
PC BOARDS/EXTENDERS	50-52,54
PC PHOTO ETCH	51
PCB DEVELOPMENT TOOLS/ACCESS.	51
PCI CARDS	72,73
PERSONAL SECURITY	68,104
PHONE JACKS	81
PHOTO TRANSISTORS	11
PHOTOCELLS	15
PIC MICROCONTROLLERS	6,7,51
PLUGS	
Banana	67
DIN, IDC, DIP	29,32
Power, Low Power	39,88
RCA	88
POTENTIOMETERS	
Audio Taper	23
Bourns	23
Cermet	23
Clarostat	22
Kits/Grab Bags	35
Linear Taper	22,23
Trimmer	23
POWER BASES/STRIPS	72
POWER CONNECTORS/PINS	
AT/ATX Motherboard	29
Disk Drive, Power Supply	31
Kits	31
Pins	29,31
POWER CONVERTERS	37
POWER CORDS/ADAPTERS	42,43,72
POWER INVERTERS	2,76
POWER JACKS/PLUGS	39,88,89
POWER PINS	29,31
POWER PROTECTION	72
POWER SUPPLIES	
AC Variable Transformers	41
AC/DC	36,37,39,40
Benchtop	65,66
Breadboard	52
Computer	71
DIN-Rail	37
Enclosed	36,37
Kits	93
Linear	40
Low Leakage	36
Open Frame	36
Switching	36,37,39,40
Table-Top	39,40
Unregulated	40
Wall Adapters	37,38,51,95
POWER TOOLS	59
POWER TRANSFORMERS	41
PRESSURE SENSOR	26
PRINTED CIRCUIT BOARD SUPPLIES	50,51
PRINTERS & ACCESSORIES	
Auto Switchers/Switch Boxes	80
Buffers/Sharers/Networks	76
Printer	75
PROBES	63,65,67
PROGRAMMERS	51,53
PROMs	5,8
PROTOTYPE ADAPTER	50
PROTOTYPE BOARDS	50,51,54
PROXIMITY SWITCH SENSORS	26
PUNCH DOWN TOOLS	61
RACKS/RACK MOUNT EQUIP.	77
RADIOS	82
RAM	5,71
RCA, JACKS/PLUGS/CABLES	87,88
RECTIFIERS	13,14
RELAYS	
DIP	28
General Purpose	27,28
Reed	27
Sockets	27,28
Solid State	27,28
Wire Wrap	82,83

MOTHERBOARDS	70,71
MOTION DETECTOR	95
MOTOR CONTROLLERS	45,93
MOTORS	
DC	43,44
Geared	44,45
Shaft Couplers	97
Stepper	45
Stepper Controllers	45,93
MULTIMEDIA	73
MULTIMETERS	62-64
MUSCLE WIRE	97
RESISTORS	
Assortments	22,34
Carbon Film	22,34
Kits/Grab Bags	34,35
Network	22
Surface Mount	22
T	96,97
ROBOTICS	96,97

**S**

SATELLITE TV	
Coax CATV	86
Connectors	86
Diplexers	85
Multiswitches	85
SCREWS	32,49
SCRs	14
SECURITY	68,73,90,91,104
SENSORS	
Hall Effect	26
Light	16
Pressure	26
Proximity	26
Ultrasonic	26
Vibration	26
SERVOS/CONTROLLERS	93,96
SHAFT COUPLERS	97
SHORTING BLOCKS	31
SIMMS	71
SOCKETS & ACCESSORIES	
Adapters	30
Assortment, Kits/Grab Bags	35
DIN	32
DIP	30
Machine Toolied	30
Oscillators	21
PLCC	30,59
PLCC Prototype Adapter	50
Relay	28
SIMM/SIPP	30
Slim Line	30
Sockets	27,28
Solder Tail	30
Wire Wrap	30
ZIF	30
SOFTWARE	
PIC Programmer	51
Reference	69,73
SOLAR PRODUCTS	
Cells	102
Chargers	46
Miscellaneous	102
Modules	102
Panels	102
SOLDER/DESOLDERING EQUIP.	
Accessories	56,58
Pots	58
Pump	56
Solder	58
Sponges	56,57
Stations/Irons/Kits	56,57
Tips	56,57
Tools	58
SOLDERLESS BREADBOARDS	50,52
SOLENOIDS	44,45
SOUND CARDS	73
SOUND DEVICES/BUZZERS	19
SPACERS	35,49,54
SPEAKERS	19,73
STANDOFFS	35,54
STATIC CONTROL	54,55
STATIC RAM	5
STEPPER MOTOR/CONTROLLERS	10,93
STEPPER MOTORS	45
SUBSTITUTION BOXES	66
SURFACE MOUNT	
Resistors	22
Tools	57,59
SURGE PROTECTORS	72
SWITCH BOXES/CABLES	79,80,86
SWITCHES	
AT Computer	24
Binary	24
DIP	24
General Purpose	26
Keylock	24
Kit/Grab Bag	35
Magnetic Reed	26
Pushbutton	24,25
Rotary	24
Sensor	26
Slide	24
Snap Action	26
Tactile	24
Toggle	25

**T**

TABLE-TOP POWER SUPPLIES	39,40
TAPE	55
TECH SPRAY CHEMICALS & ACES.	59
TELEPHONE ACCESSORIES	14,14
TELEPHONE CONNECTORS	14,81
TEMPERATURE/TIME METERS	63,68
TERMINALS	
Blocks	29
European	29
Solderless	29
Speaker	88
Ties	55,89
Wire Wrap	50
TEST EQUIPMENT	
Benchtop Power Supplies	65,66
Cable/Interface	65,66
Current Clamp Meter	64
Environmental	68
Frequency Counter/Generator	64,65
IC Test Clips	7
Kits	.92
Leads/Probes	65,67
LED	.92
Light Meter, Digital	.68
Logic Probe	.63
Multimeter, Analog/Digital	62-65
Multimeter, Benchtop	64
Oscilloscopes	64,65
Probes	63,65,67
Programmers/Testers	.53
Substitution Boxes	.66
Thermometers	.68
TEST LEADS/PROBES/CLIPS	.767
THERMOELECTRIC COOLERS/CHIPS	.70
THERMOMETERS	.68
TIE MOUNTS	.55
TIME/TEMPERATURE METERS	.63,68
TOOL KITS	.59-62
TOOLS	
Anti-Static	.52,54,55
Calipers	.59
Crimping/Stripping/Cutting	.60,61,86
Drills	.61,62
Heat Guns	.55
IC	.59
Insertion/Extraction	.59
Kits/Sets	.59-62
Miscellaneous	.56,59
Nibbling	.61
Pliers	.61
Pocket Multi-Tool	.59
Punch-down	.61
Ratchet/Socket Drivers	.62
Rearmer	.61
Screw/Nut Drivers	.61
Soldering	.56-58
Spring-Hook	.61
Tweezers	.59
Wire Wrap	.61
Wire/Coax Cutters/Strippers	.61
WRENCHES	.62
TRANSFORMERS	
International Step Up/Down	.42
Modem Coupling	.41
Power/Split Bobbin	.41
Quick Connect	.41
Table-Top	.39
Variable	.41
Wall (AC and DC)	.37,38,51
TRANSISTORS	12-14,35
TRANSMITTER, CAMERA	.90
TRIACS	.14
TWEEZERS	.59
ULTRASONIC SENSORS	26,95
USB PRODUCTS	
Adapters/Connectors	.78
Cable	.77,78
Cameras	.76
Hubs	.75,78
Miscellaneous	.76
Pocket/Thumb Drives	.75
VACUUM PENS	.56
VACUUMS AND ACCESSORIES	.62
VARISTORS	.13
VIDEO ADAPTERS	.90
VIDEO CONVERTERS	.80
VIDEO MODULATORS	.82
VIDEO MONITORS	.91
VIDEO RAM	.5
VOICE CHIPS/MODULES	.5
VOICE RECORDER	.76
WALL ADAPTERS	
AC to AC	.37
AC to DC	.35,51
WALL JACKS/PLATES	.81
WALL MOUNTS, TV/MONITOR	.83
WASHERS	.32
WIRE & CABLE MANAGEMENT	.55,89
WIRE JUMPERS	.52
WIRE/CABLE, BULK (Also Cable Assemblies)	
Coaxial Cable	.33,86
Computer Cable	.33
Flat Ribbon Cable	.33
Flat Wire	.84
Flexinol	.97
Hookup Wire, Solid/Stranded	.33
Modular Telephone Cable	.33
Muscle Wire	.97
Power/Speaker Wire	.33
Retractable	.78
Speaker	.89
Telephone	.33
Ties	.55,89
Twisted Pair/Category 5 (UTP)	.33,89
Twisted Pair/Category 5e (UTP)	.89
USB	.77,78
Wire Management	.55,89
Wire Wrap	.33
WIRELESS PRODUCTS	.74,90
ZENER DIODES	.14

**PowerFilm.****Flexible Thin Film Solar Modules****Wireless Electronics Series**

The wireless electronics series offers a new opportunity to solve the old problem of limited-power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin, and durable. With their ultra-film profile, they are easily integrated with devices for solar recharging or direct powering. Specifically developed to recharge AA, AAA, plus 6 and 12 volt batteries.



228056EE

Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T)		Pricing	
				Inches	mm	1	10
227985EE	SP3-37	3.0	22	2.5 x 1.5 x .01	64 x 37 x 0.2	\$3.89	\$3.49
227993EE	TX 3-25	3.0	25	4.5 x 1.0 x .01	114 x 25 x 0.2	2.89	2.45
228013EE	MPT3.6-75	3.6	50	2.9 x 3.0 x .01	74 x 75 x 0.2	8.89	7.99
228030EE	SP4.2-37	4.2	22	3.3 x 1.5 x .01	84 x 37 x 0.2	5.89	5.29
228048EE	MPT4.8-75	4.8	50	3.7 x 3.0 x .01	97 x 75 x 0.2	11.89	10.69
228056EE	MPT4.8-150	4.8	100	3.7 x 5.9 x .01	94 x 150 x 0.2	22.89	20.59
228099EE	MP7.2-150	7.2	200	10.0 x 5.9 x .02	253 x 150 x 0.6	39.89	37.99
228110EE	MPT15-150	15.4	100	10.0 x 5.9 x .02	253 x 150 x 0.6	44.89	42.99

**velleman Solar Cells**

The perfect solar cells for students and experimenters in these rugged cases.



200221EE

**Laser Pointer Pens**

153605EE

127749EE

- Range up to 500 yards
- 670nm red laser

Class IIIa Laser Products

Includes: 2 AAA batteries

200221EE: 2V @ 200mA    215319EE: 3V @ 100mA  
215327EE: 6V @ 200mA

Part No.	Product No.	Size (LxW)	1	10
200221EE	SOL4	3.0" x 3.7"	\$8.99	\$7.99
215319EE	4-3.0-100	3.8" x 2.5"	14.29	12.89
215327EE	4-6.0-50	3.8" x 2.5"	15.79	14.39

**Green Beam Laser Pointer**

*Ultra-intense green beam is much brighter and easier on the eyes than standard red lasers.*

Even the sleepiest audience will sit up and salute when you whip out a laser pointer that's green, not red...and so bright, you could be standing nearly half a mile away. Using a wavelength closely matched to the highest sensitivity of the human eye and built with cutting-edge crystal technology, this laser projects a green beam so powerful

you can see it against a clear sky at night. You won't believe how bright it is. Metal gift box, clip and 2 AAA batteries included. Power output <5mW. Wavelength: 532nm. 90-day manufacturer warranty.

Part No.	Description	Price
223731EE	Green laser pointer	\$169.95 \$152.25

**Solar Cell or Alternative Power Battery Charger Regulator****Alternative power to the people!**

Going "off the grid" with solar cell or other alternative power set-ups? Then you need this electronic watchdog to supervise your battery charging! Rated up to 5 amps, this easy-to-use, set-and-forget automatic unit is ideal for RVs, weekend homes and alarm system batteries. (A 5-amp fuse and fuse-holder recommended, not supplied.) LED indicators clearly denote charging and "full" conditions.

- Input: 14V to 22V (open circuit voltage), nominal – 12V
- Maximum input current: 5A
- Inrush voltage: battery voltage < approximately 13.2V
- Interrupting voltage: battery voltage > approximately 13.9V
- Own power consumption: < 3.9mA (with LED on)
- Size: 2.8" L x 2.0" W x 1.1" H

Part No.	Description	Dimensions (LxWxH)	Price
314211EE	Solar cell battery charger	2.8" x 2.0" x 1.1"	\$16.95

**Jameco is committed to serving you. Drop us a line at:**

[AtHome@Jameco.com](mailto:AtHome@Jameco.com)

We're always looking for suggestions and feedback about the products we offer.

**Over 99% of our products are in stock!**

Place your order by 6PM EST for same business day shipment.

Call us today at 1-800-455-6119

**Laser Diode Module**

- Operates on 3VDC @ <5mW
- 650nm wavelength
- Beam diameter: 5x8mm
- Working distance: over 50 meters/yards (daylight), 200 meters/yards (dark)
- Size: 0.9" L x 0.3" Dia.
- One-year warranty

Class IIIa Laser Product



NEW

Part No.	Description	Price
310519EE	Laser module, brass	— NEW \$44.95

**Solar Cell Grab Bag Assortment**

NEW

About 40 irregular pieces in various sizes, shapes, and current ratings at 0.5VDC. Connect in series to increase voltage or connect in parallel to increase current.

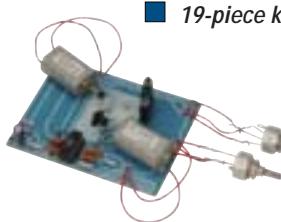


Part No.	Description	Price
215255EE	Solar cell assortment	— NEW \$9.89

**Laser Light Show Kit**

19-piece kit

NEW



Laser Pattern

*Dazzling living-room laser light shows, at a great price!*

This kit turns your laser-pointer or our own laser module, into a mind-blowing, swirling special-effects generator! Two speed-adjustable motorized mirrors bend the laser light into complex patterns at your command. Just add 6 volts of power, and project visual magic onto walls, ceilings, or the side of your home or business! Kit contains everything you need, from the gold-plated PCB to the mirrors, motors and all electronic components. SPECIAL DEAL: order #313883EE and save 13%! Includes light show kit plus our #310519EE laser module!

313875EE: laser module not included

313883EE: bundle kit (incl. P/N 310519EE, laser module)

- Operating voltage: 6V
- Current consumption: approx. 150mA
- Reflecting motors: 2
- Board dimensions, gold-plated: 3.9" L x 3.0" W

Part No.	Product No.	Description	Price
313875EE	B224	NEW Laser light show kit	\$22.95
313883EE	— NEW	Laser light show kit bundle	59.95

## Educational Kits

### Solar House Kit



**Motor Solar Cells Solar Oven Hygrometer Windmill Compass Solar Train**

*The Power House provides more than an education in new, Earth-friendly energy sources: it's an experience!*

Designed by a renowned physicist, this set leads the student through a fascinating story while teaching the fundamentals of solar power, wind power, and energy from other next-generation sources. Tons of activities and experiments are presented in an easy, step-by-step format, including a solar cooker and hot-water tank, an electric motor, a windmill, a sail-car, and lots more. Who knows? It may inspire your budding scientist to pioneer the next breakthrough in clean, renewable energy!



Part No.	Description	Kit Pieces	Difficulty Level	Price
307731EE	Solar house kit	90+	Beginner .....	\$139.95

### Telegraph Kit

Junior scientists can walk in the footsteps of Samuel Morse, inventor of the telegraph. His nifty invention changed the 19th century as much as the telephone did the 20th century and as the internet is changing the 21st. With this kit, they'll wind coils (with the included arbor, to ensure success), tinker with electromagnetism and magnetic fields, build a buzzer and a relay, dabble in Morse Code and learn about the scientific methods used by great inventors. And when they're done, they'll be the proud owners of a working model telegraph system! Superb documentation leads builders through the entire educational experience, step-by-step.

*Attention teachers and group leaders: Multi-packs of this kit are available for classroom use, complete with a valuable teacher's guide. Call today for details and special pricing!*



Part No.	Description	Kit Pieces	Difficulty Level	Price
285624EE	Telegraph kit	15	Beginner .....	\$49.95

### Build Your Own Lightbulb Kit

*Order this lightbulb kit, and watch a kid's eyes light up!*

See the world through Edison's eyes with this hands-on educational kit. The invention of the light bulb revolutionized the world. The included booklet and kit components provide a complete learning experience, from basic electricity to the effects of vacuum and different filament materials. Whether as a gift or as the basis of a prize-winning Science Fair presentation, this kit is the perfect choice for "bright" kids! Plus, the refurbishment pack (available separately) includes all materials needed to reuse the kit, again and again!

Part No.	Description	Price
285595EE	Build your own lightbulb kit .....	\$54.95
285616EE	Refurbishment pack for kit .....	14.49



*Attention teachers and group leaders: Multi-packs of this kit are available for classroom use, complete with a valuable teacher's guide. Call today for details and special pricing!*



*Talk about a super gift for a junior engineer!*

### Detector Radio Kit

This kit teaches the fundamentals of radio and electronics, and the rewarding result is a real receiver that uses no batteries or external power. Like the crystal sets that gave many great thinkers their first taste of technology, this kit delivers hands-on learning. Its 32-page Experiment Manual includes 20 activities to challenge young minds. Comes complete with all components, and clear step-by-step instructions that introduce the fascinating world of radio broadcasting and reception.

Part No.	Description	Kit Pcs.	Difficulty Level	Price
307707EE	Detector Radio kit	35	Beginner ....	\$22.95

### Basic Analog & Digital Parts & Text V1.2

Covers the essentials of 8-bit A/D & D/A conversion using a BASIC Stamp.

Introduces PBASIC commands for A/D conversion with resistor/capacitor circuits, interfacing an ADC0831 8-bit A/D converter, scaling analog outputs into meaningful digital values, analyzing time-varying signals and using PWM as analog output.

Part No.	Parallax No.	Price
282950EE	28155 .....	\$43.95



### Hovercraft Kit

This super kit is fun to build and a "blast" to run, but there's a bonus: education!

Through the kit's curriculum (available online), budding scientists and engineers will learn principles of electricity and circuits, propellers, conversion of energy and other core concepts. And at the end of the learning process, they'll have a cool, battery-powered hovering vehicle that can glide over any smooth surface, even water!



Part No.	Description	Difficulty Level	Price
285641EE	Hovercraft kit	Beginner.....	\$21.79

### Fuel Cell Car Kit



*A great introduction to the next wave of automotive energy!*



The fuel system employs a blend of technologies, using solar cells, electrolysis and power storage to generate pollution-free get-up-and-go from distilled water. The result is an environmentally-friendly model car that moves out under its own on-board power. More than 30 experiments in the full-color manual lead young learners through this state-of-the-art course in hydrogen-cell know-how!

Part No.	Description	Kit Pcs.	Difficulty Level	Price
307723EE	Car kit	39	Beginner .....	\$139.95

**More @ [www.Jameco.com/Kits](http://www.Jameco.com/Kits)**

## Multifunctional Clock

Expert Level ▲ 334-piece kit

A multifunctional clock with six 1.42" high digits that indicates time, date and temperature, selectable with toggle option. Includes a countdown function to a specific date with the last day displayed in HH:MM:SS. A chronometer with lap function (1 second resolution), a scoreboard (two players or teams, counts up to 199), a random generator from 00 to 99, 2-digit dice, count and chime beep are other functions that this clock can perform. Relay output for temperature control or time alarm. US and European display option for time, date, degrees Celsius and Fahrenheit formats. All functions and settings are wireless remote controlled (wired remote is possible).

- Fixed 433.92MHz transmitter frequency
- Temperature range: -20°C to +70°C (10 resolution); 0°F to +150°F (20 resolution)
- Memory back-up option: 9V battery or rechargeable battery
- Power Supply: 12VDC @ 300mA (rec. P/N 127976EE)
- Relay output: 1A/24V max.
- Key chain remote control included
- PCB size: 10'L x 3.2'W

Part No.	Description	Price
319281EE	Multifunction clock kit <b>NEW</b>	\$99.95

Part No.	Description	Price
319290EE	Optional case <b>NEW</b>	\$24.95

Just Added!



## Here's What's New

Over 650 Products Added!

Audio & Video	82-92
Computer Products	70-75
Fans	42
Integrated Circuits	7-11
Kits	3, 92-95, 97
LEDs & Displays	16 & 17
Power Products	36, 37, 41, 93
Programmers	53
Relays	27 & 28
Solder Equipment	57 & 58
Switches	24-26
Test & Measurement	63-65, 92

## Don't Miss These Special Blow-Out Prices

### Night Vision Monocular

See in the dark without disturbing or alerting others. Night Vision Monocular uses military-grade image intensification technology to let you see clearly for up to 300 feet, even in pitch blackness. It's perfect for campers, hunters, hikers and wildlife enthusiasts... essential for surveillance and search-and-rescue work. Night Vision collects and amplifies the minute amount of light that exists even in what we perceive as pitch black. It converts the light into electrons that strike a phosphor screen, producing a detailed image just the way your TV does. High-speed f1.5 objective lens with 2.4X image magnification. FOV of 79 feet at 100 yards. Weighs 17 oz. with 2 AA batteries (included). Comes with roomy padded carry case with adjustable shoulder strap. 1-year manufacturer's warranty.

Part No.	Description	Price
219694EE	Night vision monocular and case	Now \$164.95 Was \$199.95



Now  
\$164.95

### Bausch & Lomb Zoom Binoculars

Whether you're a sports fan, birdwatcher or amateur PI, these 10x42 binoculars put you right in the middle of the action. They're water-proof and fog-proof for clear, all-weather viewing, and tough rubber armor helps withstand the rigors of all-purpose use. Plus, the zoom-in feature lets you easily adjust for the perfect view. Refurbished to like-new factory specs.

Part No.	Description	Price
236021EE	Bausch & Lomb zoom binoculars	Only \$21.95 Was \$49.95



Only  
\$21.95



1355 Shoreway Road, Belmont, CA 94002-4100

Toll Free Ordering, Customer Service & Technical Support  
Domestic: 1-800-455-6119 / International: 1-650-592-8097

Domestic FAX: 1-800-237-6948 / International FAX: 1-650-592-2503  
e-mail: info@Jameco.com

<http://www.Jameco.com>

Customer Number

VIP Number

<input type="text"/>	<input type="text"/>
----------------------	----------------------

PRESORTED STANDARD

AUTOCR

US POSTAGE PAID

JAMECO ELECTRONICS